HEALTH CARE INNOVATION (HCIN)

HCIN 600 The American Health Care System
This course surveys the historical development of the American health care system from the turn of the Twentieth Century to the present. We examine the logic, economics, and implementation of the system's basic structural components from insurance, to hospitals, to models for compensating physicians and nurses. We review many attempts at reform, and discuss why they failed. We analyze in detail the passage of the Affordable Care Act, the Supreme Court's rulings, and its provisions on access, cost control, quality, workforce, and financing. And we begin to consider some of the directions in which the American health care system may evolve next.
Course usually offered in fall term
Activity: Online Course
1.0 Course Unit

HCIN 601 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, you will be able to use a systematic approach for analyzing and improving your work in health care settings. This will benefit patients, teams of care providers, and staff. 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. This course offers an introduction to operations management, examining inefficiencies from waste, variability, and inflexibility and providing strategies for engaging in the ongoing process of reducing these negative impacts without sacrificing quality of care. After completing the course, learners will be able to use a systematic approach for analyzing and improving their work in health care settings.
Activity: Online Course
1.0 Course Unit

HCIN 602 Behavioral Economics and Decision Making
Behavioral economics is a relatively new field at the intersection of economics and psychology. This course offers an introduction to behavioral economics and its applications to health and health care. In it, we will examine the key conceptual underpinnings of the field. We will discuss in detail the structure of the choice environment and the ways that people are influenced by how choices are structured. We will consider the design of incentives and various approaches used to "supercharge" incentive programs using behavioral economics principles. We will consider the use of social incentives and social comparisons as a way of achieving better physician performance. We will conclude with a description of how behavioral economics is used in public policy, as well as the interesting question of when a "nudge" becomes a shove.
Activity: Online Course
1.0 Course Unit

HCIN 603 Evaluating Health Care Policy and Programs
This course serves as an overview of fundamental concepts and empirical methods in the analysis of health policies and programs. It offers a pragmatic, applied approach to the subject, focusing on how the learner can use evaluation methods in practice. This course surveys key concepts in evaluation, such as confounding, selection bias, non-random assignment, the counterfactual, and matching. It examines the notions of internal versus external validity, and their influence on methodological choice. And it covers empirical methods including randomized controlled trials, regression discontinuity design, difference-in-differences or interrupted time series methods, matching, and instrumental variables. Real-world policies and evaluation examples illustrate concepts and applications of methods.
Activity: Online Course
1.0 Course Unit

HCIN 604 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.
Activity: Online Course
1.0 Course Unit

HCIN 605 Behavioral Economics Laboratory
Analyze a case, define a behavioral economics intervention, sketch a behavioral roadmap, and write a proposal for the intervention.
Activity: Online Course
0.5 Course Units

HCIN 606 Applying Operations Management
Analyze 2 health care cases; through the process of forecasting, build a KPI tree; and recommend process improvements.
Activity: Online Course
0.5 Course Units

HCIN 607 Translating Ideas into Outcomes
This course applies state-of-the-art innovation methodologies to improve health care delivery for providers, and outcomes and experience for patients. It begins with an extended discussion of how we might apply principles of analytical and scientific thinking including rhetorical analysis and behavioral economics to operational problems in health care. And it examines strategies for identifying and solving those problems; including ethnographic research to reveal what others have missed; problem reframing to enable high-impact solution directions; intentional divergence to unlock teams from initial, less productive concepts; rapid hypothesis validation to learn quickly at low cost whether and how best to invest in scaling; and designing delightful experiences, which drive word-of-mouth and catalyze the spread of desirable behaviors.
Activity: Online Course
1.0 Course Unit
HCIN 608 Analyzing Incentives and Health and Benefit Design
Recent efforts to increase the amount of health produced through health insurance benefits relative to the cost have utilized a number of strategies. These have included high deductible plans, price transparency, value-based insurance design, simplifying health plan designs, and providing incentives geared to influencing utilization. In this course, we will discuss some of the main challenges facing health insurers, efforts to reduce growth in entitlement spending, and research that focuses on the effectiveness of different strategies to modify behavior through the use of incentives embedded within health insurance design. This course will emphasize both understanding and practical applications of this knowledge through a combination of lectures and interviews with expert practitioners. Following completion of this course, students will have a deeper understanding of some of the tradeoffs inherent in the approaches insurers are taking to provide greater value and health improvement for their beneficiaries.
Activity: Online Course
1.0 Course Unit

HCIN 610 Case Studies in Clinical Innovation
To become future leaders of health care innovation, students must gain skills in diagnosing the roadblocks to an optimally functioning, high-value health care delivery system and designing actionable solutions that can chart the path forward. This course uses case studies in health care innovation to foster the development of skills that undergird clinical innovation: health systems analysis, strategic problem-solving, clinical care re-design, implementation assessment, and research development. We will explore a complex network of factors influencing health systems performance, the key ingredients for change, and how to integrate these factors to solve real world problems. Upon completion, students will be able to deconstruct complex problems in clinical care to identify nodal points for change; recognize the complex array and interplay of factors that influence clinical care outcomes; diagnose pivotal points for innovative solutions; build models for change that target pivot points to reset care delivery; embrace complex solutions and develop sustainable plans to change course; and work nimbly in multi-disciplinary teams to potentiange problem solving and innovative solutions to enduring problems.
Activity: Online Course
1.0 Course Unit

HCIN 611 Driving Value in the System
Engage in understanding the current goals of improving value—defined by quality over costs—of the health care system and drivers of improved value. Most policy experts agree that by focusing on value then we will be able to unite the different groups within the health care delivery system to help fix our current issues. Students who successfully complete this course will be able to discuss the payer drivers to increase value, measure quality, measure cost, deliver an elevator speech for resources to improve value, and select tools to implement a project to improve value.
Activity: Online Course
0.5 Course Units

HCIN 612 Ethics in Health Care Innovation and Research
This course explores a framework for conducting research, including process improvement experiments, in health care. We will review the history of research ethics and traditional guidelines and codes, and will describe federal regulations governing biomedical and behavioral research. We will then delineate a commonly accepted framework for evaluating the ethics of research and how this framework applies to several systems research projects. Upon completing this course, students will be able to critically evaluate the ethics of their specific research proposals, and will be prepared to justify their proposals to participants, funders, and institutional review boards or research ethics committees. This course is usually offered in the spring term.
Activity: Online Course
1.0 Course Unit

HCIN 614 Health Law Fundamentals
Examine the legal and regulatory aspects of the United States health care delivery and financing systems. This course explores how statutes, regulations, common law, and market forces help or hinder three major goals of policy makers: increasing access, reducing cost, and improving quality. We will examine the Supreme Court’s rulings on the ACA and other legal aspects of modern health care reform. Casebook readings are supplemented by government publications, academic articles, and policy materials. The course also includes extensive additional readings on the Patient Protection and Affordable Care Act. Students who successfully complete this course will be able to describe the laws, regulations, common law, and market forces that shape our health care system and identify areas where ideas and innovation are needed; explain the malpractice system and how it influences medical practice; and analyze legal aspects of the ACA.
Activity: Online Course
0.5 Course Units

HCIN 615 Policymaking in Health Care
How is health policy developed, decided, and executed? We are cognizant of legislation in its final, enacted form—but what precedes it, and how is it shaped? This course will take students from the offices of policymakers to the floor of the House and Senate, to the offices of physicians and providers. The course will examine what foundational elements are necessary to pass any piece of legislation and the process through which a law comes to fruition. Key health care legislation—Medicare, “Clinton Care,” CHIP, and the ACA—will all be examined through the lens of policy development. Upon completing the course, students will be able to define the specific decisions, actions, and agendas in order to, ultimately, propel health care policymaking.
Activity: Online Course
0.5 Course Units
HCIN 616 Population Heath & Equity
Topic Pair: Improving Global Population Health & Health Disparities to Equity
The first half of this course will review the causes of and policy approaches for health disparities and relate them to the specific discipline of each student. We will explore health equity within the context of population health while examining strategies for improving health equity through case studies and policy analysis. Upon completion of this course, you will be able to identify health disparities and social determinants of health that adversely affect populations’ health and apply strategies for improving health equity and creating opportunities for all populations to live up to their full health potential. The second half of this course pair will apply an economics perspective to topics related to health in low- and middle-income countries and examine policy solutions to improving population health in these countries. Through a mix of lecture, discussion, and student presentations we will review key questions in global health. We will address these questions through an exploration of empirical investigations of the impact of various policies on health issues including immunization and malnutrition in children, malaria prevention, and HIV prevention. Upon course completion, you will be able to appraise key health policy issues in low- and middle-income countries. This course will review major issues related to the delivery of health services in low- and middle-income countries. The course will examine trends in health-related foreign aid; assess the performance of major donor-funded health initiatives; and review efforts of countries such as Brazil, India, and South Africa to improve the health of their populations through initiatives such as expanded health insurance. In addition, this course will analyze the demand- and supply-side barriers to improving health in low-income countries while also reviewing innovative service delivery models and behavioral interventions. Upon completing the course, students will have a better understanding of prominent health initiatives in developing countries, the financing and delivery of health services, and innovative solutions that have the potential to be implemented at scale in the future.
Activity: Online Course
1.0 Course Unit

HCIN 617 Transforming Health Care
Transformation of Health Care in the Real World
A number of best practices show promise in improving care, including open access scheduling, care coordinators, physician extenders, medical homes, and connected technologies. But two forces keep these best practices from spreading and from having the transformative results they are capable of delivering. First, health care is complex and a best practice that works well for hip replacement might not be right for the management of a chronic condition. Second, implementation in the real world is more than identifying a best practice and declaring it as the new standard for care delivery. An organization has to first understand the new practice and how it should be applied to a new setting, involving both technical solutions and changes to management systems. Finally, a successful transformation requires a change in providers’ mindsets and behaviors. The purpose of this course is to teach participants about successful transformative practices in various parts of the health care system, enabling them to lead initiatives to transform their own medical organization. Students will hear from practitioners what works, learn from academics why the practice works and what are alternatives, and discuss with practitioners how the practice was rolled out. Topics will include scheduling, care delivery A number of best practices show promise in improving care, including open access scheduling, care coordinators, physician extenders, medical homes, and connected technologies. But there are two forces that keep these best practices from spreading and from having the transformative results they are capable of delivering. First, health care is complex and a best practice that works well for hip replacement might not be right for the management of a chronic condition. Second, implementation in the real world is more than identifying a best practice and declaring it as the new standard for care delivery. An organization has to first understand the new practice and how it should be applied to a new setting, involving both technical solutions and changes to management systems. Finally, a successful transformation requires a change in providers’ mindsets and behaviors. The purpose of this course is to teach participants about successful transformative practices in various parts of the health care system, enabling them to lead initiatives to transform their own medical organization. Students will hear from practitioners what works, learn from academics why the practice works and what are alternatives, and discuss with practitioners how the practice was rolled out. Topics will include scheduling and appointment management, welcoming the patient, care delivery in the process flow paradigm, care delivery with more complex patients, discharge and follow-up, and financial viability.
Activity: Online Course
1.0 Course Unit

HCIN 618 Building Transformation
Analyze an existing case from a health care setting and identify an opportunity for change in your own professional context that you would develop in the following course.
Activity: Online Course
0.5 Course Units

HCIN 619 Pitching Innovation
Further define an innovation project and develop a written proposal and oral pitch geared toward stakeholders.
Activity: Online Course
0.5 Course Units