UAB EXECUTIVE DOCTORAL PROGRAM IN HEALTHCARE LEADERSHIP
OVERVIEW OF COURSES

**All DSc students will take the following courses during their first two years in the program. Students are provided with a course schedule ahead of each semester and enroll in the assigned classes, along with their fellow cohort members. The third year is devoted to completing an applied dissertation, under the guidance of a four-member committee of faculty mentors.

AHD 706 - Strategic Management Theory and Research

This course enables executive doctoral students to become well-versed in the contemporary and foundational healthcare strategic management scholarly literature; and ultimately contribute to it. In addition to mastering the healthcare strategy literature, emphasis will be placed on applying concepts for strategic decision-making in healthcare organizations.

Through their participation in this course, students will:
- Summarize the contemporary and foundational strategic management literature, with an emphasis on managing for High Reliability, the Baldrige approach, learning health systems, culture, teams and the importance of the leader's own thinking.
- Explain strategic decision making as a leadership competency.
- Evaluate strategic decisions and decision-making processes from a variety of perspectives.
- Align operating strategy, competitive strategy and corporate strategy.
- Gain a better understanding of their own strengths and opportunities for improvement in strategic management: individual, interpersonal, and collective.

NEW COURSE HCI 719—Foundations of Artificial Intelligence (AI) for Healthcare Leaders
This course equips healthcare executives and clinical leaders with the essential knowledge and strategic frameworks needed to make decisions and successfully implement AI solutions within their organizations. Through a blend of theoretical foundations and practical applications, students will develop the expertise to lead AI initiatives that enhance patient care, operational efficiency, and clinical outcomes.

Explore the fundamental concepts of artificial intelligence, machine learning, and deep learning specifically tailored to healthcare applications. Understand healthcare data types and data architectures. Examine contemporary AI solutions transforming healthcare delivery, from diagnostic support to personalized medicine. Develop leadership skills for building, managing, and evaluating multidisciplinary AI teams. Learn frameworks for ethical AI implementation that addresses privacy, bias, and regulatory compliance.

AHD 718 - Strategic Implementation and Evaluation

Implementation is the process of putting an intervention or program into action. The perspective adopted in this course is that implementation is fundamentally a question of change – how to catalyze it, direct it, and sustain it in the pursuit of some new desired state (e.g., new organizational structure, new organizational routine, new culture). The purpose of this course is to familiarize students with different theories and frameworks for understanding implementation. Students gain practical experience through a series of assignments involving the identification of a hypothetical implementation effort and the development of an evaluation plan to measure its impact.

AHD 730 - Health Economics & Insurance

Economics is a systematic way of thinking about the use of resources. This course develops economic principles and describes the system of health care financing and delivery in the United States, providing a basis for analyzing health management and policy options. Insurance is a mechanism for dealing with consequences of an uncertain world. The workings of insurance markets and current policy issues are analyzed in depth as applications of economic principles. The course presents health insurance and its consequences as significant reasons health care markets differ from others. The course considers: the demand for health insurance, underwriting and rate making, moral hazard and adverse selection, selective contracting and provider & insurer competition, employer health benefits and self-insurance, Medicare and Medicaid, and of course, the Affordable Care Act (ACA).

The course will not qualify you to be an economist, an actuary or an insurance agent. Rather, it will enable you to critically consider policy and management issues attendant to: employer health benefits, managed care operation, hospital strategic planning, care for the indigent, implications of the ACA, and a host of other insurance related topics. This course establishes programmatic competency in the areas of: (1) Economic analyses and applications to business decisions, (2) Health policy formation, implementation and evaluation, (3) Identifying the main components and issues regarding the organization, financing and delivery of health services and public health systems in the US, and (4) Describing and analyzing major topics of health insurance such as demand for health insurance, underwriting, rate making, moral hazard and adverse selection, HMOs and PPOs, employer health benefits and self-insurance, Medicare and Medicaid.

AHD 711 - Leadership of Health Systems

This course enables executive doctoral students to become well-versed in the scholarly literature regarding leadership in healthcare. The course will review the major theoretical perspectives on leadership and will link the literature to practice.

At the conclusion of the course, students will be able to:
- Apply concepts from contemporary leadership literature to explain leader behavior in the healthcare environment.
- Evaluate the principles underlying one or more major research streams in the leadership literature.
- Identify and describe significant theoretical concerns in contemporary leadership literature.
- Identify events within an organization where evidence-based leadership is practiced.
- Use existing theory to develop and describe the student's personal leadership model.
- Use evidence-based leadership principles to scale innovation, improve quality, and make the employee/consumer experience better.
- Use evidence-based leadership principles to improve work culture.

AHD 735 – Healthcare Quality Improvement

This course is designed to give healthcare executives and leaders a working knowledge of policy issues and managerial methods related to the quality and safety of healthcare. It will briefly trace the history of quality improvement in healthcare and explore both public sector and private sector approaches to quality measurement and improvement. While several specific quality measurement and improvement methods will be explored, the major focus of the course is on the role of senior executives in creating and maintaining an organizational culture in which quality improvement and safety initiatives can flourish. The role of the

organization's governing board, senior managers and physician leaders in quality improvement will be emphasized. Tools for culture assessment and methods of change management will also be explored. Case studies and exercises centered around improving organizational performance on Medicare-reportable quality measures will be used to illustrate principles and methods discussed in the course. Key policy issues related to quality measurement and reporting, patient safety, and financial incentives for quality improvement will also be discussed.

AHD 705 - Health Care Finance

This course will provide an overview of health care financial management for an executive interested in developing sophisticated analytical and strategic management skills. Financial management, in common usage, refers both to the fields of *accounting* (reporting and analysis of financial transactions) and *finance* (a branch of economics concerned with resource allocation and management). This course will cover both accounting and finance.

This course is designed to establish a solid understanding of financial management concepts and to relate these concepts to the conduct and evaluation of research. Upon completion of the course, students will be able to:
- Use the information from the firm's financial statements to draw conclusions about the firm's financial characteristics
- Understand the strategic goals of finance, namely the ability to acquire assets and employ them efficiently
- Identify factors that serve as barriers to (and facilitators of) these goals
- Identify institutional aspects of health care firms that affect the financial management of these firms
- Choose appropriate measures of financial condition to address a research question
- Apply financial management concepts when conducting and evaluating research on health care firms

AHD 775 - Strategic Planning and Management in Health Care Organizations

This course provides a critical examination of contemporary research in strategic management applied to health services organizations. Students are required to do extensive reading organized around major streams of research in strategic management. Reading and assignments are intended to challenge students to become familiar with empirical and conceptual literature in this area. At the conclusion of the course, the student should be able to critically evaluate empirical publications that could inform their own, and more generally, healthcare decision making. Objectives include providing the student practice in reviewing and critiquing empirical research, exposing students to a range of research on health services organizations from the last fifteen years, and familiarizing students with measures used to operationalize strategy in health services research.

AHD 731 - Health Policy and Politics in the United States

The World Health Organization defines health policy as follow: "Health policy refers to decisions, plans, and actions that are undertaken to achieve specific health care goals within a society. An explicit health policy can achieve several things: it defines a vision for the future, which in turn helps to establish targets and points of reference for the short and medium term. It outlines priorities and the expected roles of different groups; and it builds consensus and informs people."

An effective economic and political system links the values of a society with its resource allocation decisions. Over the last few decades, access, cost and quality of care form the basis of how we evaluate the value of healthcare related economic and political systems. While optimal systems may not exist in practice, each system develops its own principles for using individual and collective values in decision-making. At a more practical level, local, state, regional and national health policies increasingly affect the activities of clinical providers, managers of health care delivery institutions, providers of medical supplies and devices, pharmaceutical manufacturers, leaders of the health insurance industry and health care consultants. Success in any of these areas requires an ability to monitor, understand, anticipate, and mitigate the managerial implications of health policy. Success also may require healthcare leaders to identify current and needed research to influence current and future health policy.

This course will examine and analyze the implications of several key health policy issues on various components of the health care industry. Consumers, producers (providers) and government institutions choose alternate methods of achieving their goals and objectives. The course also will engage students in current research that is available on specific health issue(s) of importance to healthcare leaders and the need for additional research.

AHD 715 - Research in Organization Theory

This course is designed to develop the student's ability to use theory-based research in health-care organizations. The course will cover the major theoretical perspectives on organizations and will link these to contemporary empirical studies. Special focus is placed on exploring the link between theory and research exhibited in this empirical work to enable students to develop the capability of using theory-based principles to guide their management practice and their own applied research.

At the conclusion of this course, students will be able to:
- Describe important theoretical concepts encompassing the field of organization theory.
- Explain how these theories can be used to classify and make inferences about experiences they have observed within their organizations.
- Critique how these theories can be used in designing, managing, and changing healthcare organizations in the future.
- Describe and critique in writing an event in their organization that involved a significant organizational change or when evidence-based management was practiced.
- Evaluate organizational change activities or evidence-based management practices described by peers

AHD 710 - Comparative Health Systems

The United States is not alone in seeking ways to ensure access to high-quality health care while confronting escalating health care costs. Countries are reforming their delivery and financing systems by promoting market competition, forms of managed care, and provider incentives. As the U.S. health delivery system continues to evolve, lessons from cross-national comparisons can provide useful insight to policymakers here at home. This course explores differences in health systems on both a U.S. and Global basis. Students will compare system differences within the United States as well as compare the U.S. system with that of other countries.

AHD 716 – Macro-environmental Analysis

Macro-environmental analysis is strategic in nature and will focus on specific issues, trends, conditions, policies, etc. that may influence the delivery and financing of healthcare services and products in the both the short and long terms. Macro-environmental analysis is the first step in the development of an organization's strategic plan. Throughout the course, students will assess variables in the external and industry environments that may impact the organization's internal environment and its competitive advantage in the market.

AHD 714 - Marketing Strategy & Research

This course is designed to provide a general overview of the discipline of marketing in health care in relation to meeting both consumer and organizational needs. It is designed for students who have already completed a master's level course in marketing.

General objectives for the course are to:

- Increase understanding of health care marketing issues, problems, and solutions.
- Study scholarly literature surrounding key marketing concepts.
- Examine current, applied marketing topics.
- Research a current applied or theoretical marketing topic as it relates to health care and present those findings in a scholarly research paper.

Research Methods Core

**Courses in the Research Methods Core are Sequenced so the Content of Each Course Builds and Prepares for the Next in the Sequence*

AHD 707 - Research Methods

'Research methods' is a broad term that encompasses many aspects of any research endeavor. Complicating matters is the fact that it means different things to different people. For some, the research method is narrowly defined to mean the quantitative or qualitative techniques used to analyze data. For others, the research method is defined to include the preparation for data collection, data collection, and the techniques used to analyze that data. This course adopts the latter definition. Regardless of the definition, the research design is the backbone of any good study. Whether you are a researcher conducting research or a practitioner 'consuming' this research, understanding the building blocks of high-quality research will help you in your career.

Upon completion of this course, students will be able to:
- Explain your view of what we can (and cannot) realistically expect from scientific inquiry
- Develop a testable hypothesis
- Select study designs and samples appropriate for your research questions
- Explain the concept of construct validity and identify the qualities of good measures
- Discuss the methodological difficulties of constructing good measures and describe the tools or strategies available to assist you in overcoming these difficulties
- Explain the concept of internal and external validity and recognize common threats to both
- Discuss how research and practice can (and cannot) inform one another
- Improve your skills as an objective consumer of research
- Develop effective research proposals

AHD 632 - Quantitative Methods in Health Services Administration

This course is intended to provide an introduction to quantitative methods in health administration for Executive Doctoral students. This course is designed to provide students with an introduction to data display, reporting, analysis, and interpretation. Topics covered include descriptive statistics, probability, hypothesis testing using parametric and non-parametric methods, multiple regression, and predictive forecasting. The course will progress through the different steps required to analyze data in Excel and Stata. Completion of this course will facilitate decision-making tasks involving analysis of data typically used to measure and evaluate important issues involved in the management of health care delivery processes.

AHD 722 - Regression Analysis

The purpose of this course is to provide students with an understanding of empirical tools that can be used to empirically analyze non-clinical datasets, interpret results, and thereby address a variety of issues in health services and health policy research. The course also aims to help students interpret empirical results from scientific papers in various health policy journals. The focus is on learning to appropriately apply and interpret the empirical methods, rather than understanding the underlying mathematical concepts that go into creating the methods.

AHD 727 – Applied Multivariate Statistics for Health Administration Research

This is a survey course on the application of multivariate statistical analysis methods in health care management research. The course focuses on application of these methods to health administration research questions, with emphasis on interpretation within real healthcare management problems.

This course will cover the following topics: 1) multiple regression, 2) multiple logistic regression, 3) principal components and exploratory factor analysis, 4) discriminant analysis, 5) hierarchical linear models and repeated measures analysis. We will also cover contingency table analysis (basic categorical data analysis techniques), survey and questionnaire design, and study design. Focus will be placed on understanding when various methods are applicable and interpreting the results. Assignments will consist of reading text material and relevant articles, working example problems, and write-up of analysis methods and results.