MHA Course Catalog Descriptions

Core Courses

MHA 501 Introduction to healthcare systems, policies, markets, economics (3 cr)

An introductory course that focuses on the system of health and welfare. An integrated understanding of economic principles and healthcare practices sets the foundation for the professional development of healthcare leaders with the objective to lead improvements and transformational changes in healthcare organizations and systems. Topics include healthcare systems, accountable care, managed care, healthcare economics and insurance, policy changes and reform strategies, global markets and health supply chains, and the roles of healthcare stakeholders.

MHA 502 Legal, ethical, and regulatory principles in healthcare (3 cr)

Explores and analyzes legal, regulatory and ethical issues facing healthcare professionals. Topics include government regulations and laws for providers, the court system and healthcare decisions, patient rights and informed consent, information management and privacy, tax exemption, insurance and risk management, liability risk and prevention, licensure and accreditation, ethical and political dilemmas, as well as cutting-edge legal and ethical issues involved in research, intellectual property development and the use of emerging technologies.

MHA 503 Data, information and technology systems management in healthcare (3 cr)

The CIO's perspective for driving digital transformation in healthcare. The ability to use data – such as electronic health records, financial data, claims and surveys - and cutting-edge analytics and technologies through the information technology system to improve quality and operational effectiveness and support strategic and managerial decisions is a differentiating factor for today's healthcare managers. Topics include the core information technology elements and management issues in healthcare delivery, strategic planning and innovation, data analytics for prediction, evaluation and decision support, regulation, governance, infrastructure, portfolio and contract management, as well as discussions on trending issues such as Internet of Things, big data, artificial intelligence, cloud computing, cybersecurity and blockchain.

MHA 504 Operations and supply chain management in healthcare (3 cr)

Provides an integrated approach to designing, improving, and optimizing healthcare processes and supply chain systems in order to achieve competitive advantages: cost, quality, service, flexibility, adaptability, and sustainability, which support healthcare organizations' strategies of efficiency and service excellence. Topics include the operations research framework, resource and capacity planning, process analytics and throughput management, queueing and the impact of variability, procurement, inventory, and supply chain management, continuous quality improvement, and business model innovation.

MHA 505 Accounting and financial management in healthcare (3 cr)

Learn to speak the language of a healthcare CFO for the effective development and allocation of financial resources to maximize value and outcomes. The goal is to develop a framework with methods and models for making sound financial decisions in healthcare organizations and systems. Topics include financial accounting, managerial accounting, and corporate finance.

MHA 506 Organizations and human capital management in healthcare (3 cr)

Managing people and teams is essential to modern healthcare systems. This course explores how organizational theory methods, models and principles help healthcare organizations succeed. Topics include talent management in healthcare, retention improvement, compensation and job design, credentialing and professional growth, emotional intelligence, performance measurement, motivation and incentive structures, conflict and negotiation, leadership and communication, technology support, and decision-making.

MHA 507 Healthcare marketing and communications strategies (3 cr)

The course is aimed at providing frameworks and tools for analyzing healthcare markets to address who to market to and how to market questions, and developing strategies and marketing plans for successfully competing in the healthcare marketplace. Topics include marketing research, market segmentation, branding, pricing, promotion and advertising, patient behavior and relationship management, digital and social media marketing, fundraising, public relations and corporate communications.

MHA 600 Practicum/service learning activity (3 cr)

This course and its successor, MHA601 or MHA602, are required for the MHA degree program. The purpose of these courses is to accomplish a capstone project or thesis in the field of Healthcare Management. The goal of this course is for students to gain first-handed experiences in a fieldwork setting and complete a project or thesis proposal that serves as an entry point into their last course, MHA601 Master's Thesis or MHA602 Residency/Service Learning Activity, in which they will complete the cumulating project.

MHA 601 Thesis (3 cr)

This course or its equivalent, MHA 602, is required for the MHA degree program. The purpose of this course is to complete a capstone research project in the field of Healthcare Management with a focus on the applications of Analytics and Intelligence (A.I.) methods, culminating students' experiences in the MHA Program. Based upon the thesis proposal and thesis work completed under the supervision of the student's faculty advisor(s) and with the approval of the MHA faculty, students should be undertaking this course to complete their thesis writing and successfully defend their theses.

MHA 602 Residency/service learning activity (3 cr)

This course or its equivalent, MHA 601, is required for the MHA degree program. The purpose of this course is to complete a capstone project in the field of Healthcare Management, culminating students' experiences in the MHA

Program. Based upon the project proposal and project work completed under the supervision of the student's faculty advisor(s) and with the approval of the MHA faculty, students should be undertaking this course to complete their project report writing and successfully present their projects.

Elective Courses

MHA 511 Strategic analysis and planning for healthcare (3 cr)[1]

From the viewpoint of a healthcare CEO, a senior executive, a board member, a public officer, or an entrepreneur, this course focuses on developing an integrated framework for formulating a strategic plan or a strategic decision through the exercise of identifying opportunities, evaluating alternatives, redesigning systems, and fostering innovations in order to maximize value and optimize care quality and patient outcomes, employee satisfaction, as well as institutional efficiency, accountability, and sustainability through strategic thinking and leadership.

MHA 512 Change management and leadership (3 cr)[1]

Change management and leadership have become essential skills for managers in the ever-changing healthcare industry. Transforming healthcare needs tremendous leadership. In this courses, students are introduced to the concepts and practice of leadership and complex change leadership issues in healthcare organizations. Behavior models and a 360-degree approach of leadership assessment are introduced through experiential activities that set the foundation for developing leadership action plans and managing transformational changes on a continuous basis.

MHA 521 Executive decision making for healthcare (3 cr)

This course is designed to provide a framework that integrates quantitative and qualitative analyses for effective evidence-based, value-shared decision making in healthcare. Topics include decision styles of healthcare professionals, leaders and stakeholders, ethical judgment and behavior decision making, group and organizational decisions, multi-objective optimization and decision making under uncertainties, planning, implementation, and communication of decision making, and executive decision making with modern technologies such as data sciences and artificial intelligence.

MHA 522 Global Procurement and supply management (3 cr)

Public health crises expose problems in the healthcare supply chain. This course provides an overview of sourcing strategies in the global marketplace that can potentially create value for all healthcare stakeholders. Topics include demand management, procurement and purchasing, insourcing, outsourcing and multi-sourcing, group purchasing, supplier selection and management, global logistics, inventory control, security and compliance, information infrastructure, knowledge management, and supply chain leadership.

MHA 523 Healthcare in the global marketplace (3 cr)

Globally healthcare is a $10 trillion market that keeps growing and offers significant opportunities of investment, innovation and collaboration. This course provides a global perspective on various healthcare economics and delivery models in developed and developing countries, social and environmental issues, mental health, disease control, complementary medicine, nutrition, and other issues, and explores opportunities for proactively engaging in and capitalizing on the globalization of healthcare with cost reduction, patient and provider mobility, value-based collaboration, technology and care model innovation, and digital transformation.

MHA 524 Public health, compliance, and risk management (3 cr)

Explores external risk factors such as social, cultural, behavioral, environmental and regulatory factors that affect public health and healthcare outcomes, as well as risk management strategies for patient care, emergency preparation, financial and personnel management, and medical research. Topics include regulatory review and assessment of safety and compliance risks, risk remediation, risk monitoring, risk auditing and reporting, risk management plans and implementation, and preparation for future policy changes.

MHA 525 Innovation, entrepreneurship and new venture financing (3 cr)

The entrepreneur's perspective on fostering market-driven product and service innovations and initiating new ventures. Students learn to serve as leaders with the knowledge and management skills to develop, scale and deliver breakthrough solutions to healthcare problems, and write a comprehensive business plan that include the new product or service and its technology innovation, mission and vision of the organization, value proposition, market analysis and marketing plan, pricing, financial analysis and projections, operations and human capital strategies, organizational design, supply chain design and fulfillment plans, compliance and ethical risks, and social and environmental impacts. Students are also prepared to make key decisions on valuating the company, raising money from individual investors, ventral capital or private equity, and structuring funding, employment contracts and exit strategies.

MHA 531 Data analytics and predictive models for business intelligence (3 cr)[2]

Examines real-world cases of how analytics and innovations have been used to support decisions and transform healthcare delivery. Through these cases, the following cutting-edge data analytics and prediction methods are covered under an optimization framework: data visualization, regression, machine learning, decision trees, classification, clustering, and text analysis, with applications in various areas, e.g., demand management, forecasting and inventory planning, dashboards and scorecards, cost control, care performance and quality improvement, cybersecurity, personalized medicine, disease prevention and control, safety, clinical research, etc.

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[1] Required for the Leadership concentration

[2] Required for the A.I. concentration

MHA 532 Optimization and prescriptive decision models (3 cr)[2]

Introduces the frameworks, algorithms and applications of optimization modeling and operations research methods that can help healthcare professionals, managers and organizations prescribe optimal decisions and solutions. Real-world cases will be discussed with applications of linear programming, network flows, integer programming, nonlinear programming, heuristics, as well as stochastic methods, to motivate the use of optimization to support managerial decision making and problem solving, and develop relevant skills for identifying opportunities and managing the implementation of optimization.

MHA 533 Systems simulation and design for healthcare delivery (3 cr)

Introduces key elements of computer simulation of healthcare delivery systems that can provide healthcare managers and professionals a unique decision support tool to evaluate design alternatives in complex systems subject to uncertainty, without interrupting the actual process. Topics include simulation modeling with a software package, design of simulation experiments, input modeling, output analysis, cost analysis, verification and validation, systems comparison, optimization via simulation, and visualization and communication. Real-world examples include simulating patient flows at a major hospital for resource allocation and scheduling; disease spread for evaluating mitigation strategies; a pharmaceutical distribution center for congestion reduction; and a pharmaceutical market for evaluating promotion strategies among others.

MHA 534 Health Record Management and cybersecurity (3 cr)

Explores the roadmap of design, implementation and optimization of electronic health record systems, as well as the prevention of cybercrimes which threaten patient privacy and safety, clinical outcomes and healthcare organizations' financial performances. Topics include budgeting, workflows, vendor selection, governance, communication and training, privacy and security compliances, strategies for improving cybersecurity, technology and infrastructure, systems optimization, and implications on medical decisions and outcomes.

MHA 541 Introduction to analytics programming (3 cr)

Students will gain a fundamental understanding of a popular programming language with a simple syntax and a powerful set of libraries by creating a variety of scripts for analytics, database access, and web applications. Programming for analytics is becoming an integral part of many professions ranging from finance and insurance to education and healthcare, and an essential skill for many professionals including healthcare researchers, practitioners and managers. This course is suitable for students without any prior programming experience. Students learn to implement basic coding skills for practical, real-world applications, which can be built in a simple cloud-based environment, and will be able to organize and analyze data efficiently by writing scripts.

MHA 542 Machine learning and artificial intelligence for healthcare (3 cr)

Explores various ML/AI technologies, applications and opportunities for healthcare as more real-world applications emerge. This course is aimed to provide a fundamental understanding of the potential for AI innovations to transform healthcare through the efforts of leaders and professionals from both the healthcare and technology industries. Students will have the experiential learning opportunity to practice data organization, data aggregation and ML model building using case data or real data with various healthcare applications. *Prerequisite: MHA 541 or permission of the instructor*.

MHA 551 Healthcare delivery and service management (3 cr)[3]

Explores value-based healthcare delivery with focuses on improved quality, lower cost, and better patient satisfaction for achieving service excellence as a competitive advantage. Topics include service systems and strategies for delivering customer value, communication, staffing and training, motivation and empowerment, financial incentives and risk sharing, accountable care organizations, impact of population health and public policies, informational technology infrastructure, quality and safety improvement, waste elimination, contract management, and systems integration.

MHA 552 Lean Six Sigma and project management for healthcare (3 cr)[3]

Lean Six Sigma combines the methodologies of six sigma quality management and the lean enterprise to enable fact based management and change management, and create an efficient organization that maximizes value. Students will practice business problem solving and process improvement through experiential learning activities, and experience a project-based approach for defining, measuring, analyzing, improving and controlling healthcare outcomes. In addition to Lean Six Sigma methodologies, topics also include the essentials of project management including initiating, planning, implementing, managing, and controlling a project, which drives innovations and changes in healthcare organizations.

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[3] Required for the Service Excellence concentration