

HCIN 540: INTRODUCTION TO HEALTH CARE INFORMATION MANAGEMENT

Informatics

Analytics

Leadership

Provides students with the necessary skills to understand the basis for health care informatics. Emphasizes basic understanding of computer hardware, network architecture, clinical application of electronic health records, and health care software applications. Includes relevant regulatory, patient privacy, security, and reimbursement issues. Examines current trends in meaningful use and electronic health record (EHR) certification as a foundation for understanding emerging issues in health care informatics.

HCIN 541: INTRODUCTION TO HEALTH CARE DELIVERY SYSTEMS

Informatics

Analytics

Leadership

Provides an overview of the health care delivery system, professional roles, care delivery models, and relevant regulatory environment in the United States. Overviews common chronic and acute disease states that drive the U.S. healthcare system to provide the student with context for care delivery models. Intended for non-clinician students or individuals who lack significant professional health.

HCIN 542: SYSTEMS ANALYSIS AND DESIGN FOR HEALTH CARE INFORMATICS

Informatics

Analytics

Leadership

Prepares students in the planning, analysis, design, and implementation of computer-based information and technology systems. Includes systems development life cycle, project management skills, requirement analysis and specification, feasibility and cost-benefit analysis, logical and physical design, prototyping, system validation, deployment, human factors, and post-implementation review.

PROGRAM DETAILS

- 37 units completed over 23 months
- 12 courses + a capstone project
- Take the core **Informatics** curriculum, or specialize in healthcare **Analytics** or health systems **Leadership**
- Classes run year round in three terms: Spring (January), Summer (May) and Fall (September)
- All students complete a 12-hour orientation course before starting the program

HCIN 543: DATABASE DESIGN AND KNOWLEDGE MANAGEMENT

Informatics

Analytics

Leadership

Provides opportunities to gain advanced skills in data and knowledge management. Addresses applied skills in database design, data structure, modeling, and development of database management systems to resolve problems in health care informatics and research settings. Also focuses on the development of fundamental skills in knowledge management and knowledge engineering as applied to the health care environment. Provides an overview of national health care databases such as the National Database of Nursing Quality Indicators (NDNQI) and Centers for Medicare and Medicaid Services (CMS) Core measures and data mining techniques. Promotes skills in accessing clinical databases to resolve selected clinical problems.

HCIN 544: ADVANCED HEALTH CARE INFORMATION MANAGEMENT

Informatics

Provides information and skills necessary for leadership in informatics roles in health care systems. Emphasizes the design, implementation, and evaluation of electronic health record systems and clinical decision support systems. Also addresses regulatory, reimbursement, ethical issues, and emerging technology in health care informatics.

HCIN 546: CAPSTONE

Informatics

Analytics

Leadership

This is the final course in the online Health Care Informatics program sequence and is given during the final 14-week semester of the degree program. The purpose of this course is to thread program concepts, skills, and knowledge developed throughout the program into a culminating capstone experience.

HCIN 500A: CAPSTONE FUNDAMENTALS

Informatics

Analytics

Leadership

Capstone Fundamentals HCIN 500A, provides enrolled students with opportunities to explore a topical survey of current Health Information Technology (HIT) trends that may include critical background contributing to the selection of a topic and development of their individual CPP.

HCIN 500B: CAPSTONE DISCOVERY

Informatics

Analytics

Leadership

Capstone Discovery HCIN 500B, provides enrolled students with opportunities to explore principles of project management (PM), data development, and effective visuals that may assist in the further development of their individual CPP topic.

HCIN 500C: CAPSTONE DEVELOPMENT

Informatics

Analytics

Leadership

Capstone Development HCIN 500C, provides enrolled students with opportunities to develop collaboration and buy-in, market context and alignment, and expand their understanding of impact to the portfolio that will arise from their individual CPP.

HCIN 547: HEALTH CARE ANALYTICS

Informatics

Analytics

Prepares students to apply various types of clinical data to solve complex clinical questions based on prior knowledge achieved in the Health Care Informatics program. Students apply an evidence-based practice approach to solve various clinical questions using a variety of clinical data sets including population-level data. The course focus includes how data can be leveraged to solve specific clinical questions, the development of Clinical Decision support rules, and Precision Medicine applications. Students will develop data analytics skills by utilizing real-world use cases found in the clinical setting.

HCIN 549: BIOSTATISTICS

Informatics

Analytics

Leadership

This HCI seminar course provides the student with the opportunity to work collaboratively with faculty and student colleagues to address concepts and ideas emerging in the field of Health Care Informatics. Each seminar focuses on various aspects of the Clinical Informaticist Health Care Data Analyst and Health Care Informatics Leader role. Throughout the seminar course, students will use various methods to analyze emerging trends in health care and informatics. Seminar students will generate self-reflective and field-relevant capstone projects. Students will fulfill program competencies through individual projects.

HCIN 552: CLINICAL DOCUMENTATION: ELECTRONIC MEDICAL RECORD SYSTEMS

Informatics

Analytics

Clinical documentation: Electronic systems explore hardware/software development requirements for EMRs and application of EMR data for: quality, risk assessment, billing, and research applications. Includes overview of clinical devices that assist in medication administration such as BCMA(Bar Code Medication Administration). Applies problem-based learning to the development of clinical rules and alert systems for both Clinical Decision Support (CDS) and CPOE (computerized Physician Order entry) systems. Course emphasizes regulatory requirements for electronic medical records to include: HIPPA, Meaningful Use Requirements, security applications, and federal breach reporting.

HCIN 556: HEALTHCARE LEADERSHIP, VALUES, AND SOCIAL JUSTICE

Informatics

Analytics

Leadership

This course develops knowledge and hones skills concerning the management of people in healthcare organizations. It examines issues critical to being an effective leader with an emphasis on practical application. These issues include: leadership, motivation, effective team functioning, power and influence, corporate ethics, principles of social and health care justice, building and enabling high quality relationships and organizational structure. Students will improve abilities to diagnose, analyze, and take effective action as leaders in the healthcare arena.

HCIN 557: FINANCIAL MANAGEMENT IN HEALTH CARE SYSTEMS

Informatics

Leadership

This course Provides a forum for the exploration and evaluation of the financial environment of the health care industry and how it specifically affects the role of the health care leader. Emphasizes the development of financial analysis skills that provides a foundation for application within the health care delivery system.

HCIN 558: STRATEGIC PLANNING AND MANAGEMENT OF HEALTH SYSTEMS

Informatics

Analytics

Leadership

This course emphasizes strategic planning and management as requisite to growth and survival of health systems. It also acquaints students with the language, processes, tools and techniques of strategic planning and change management that will enable them to contribute effectively to strategic thinking and action in health systems.

HCIN 559: MANAGEMENT OF HEALTH CARE SYSTEM QUALITY OUTCOMES AND PATIENT SAFETY

Informatics

Analytics

Leadership

Focuses on the evaluation of patient safety and quality of care outcomes from a systems perspective. Explores theoretical and methodological foundations for understanding and applying patient safety and quality of care outcomes within the current health care environment. Reviews safety applications in other high-risk industries with application to nursing and the healthcare industry. Emphasizes identification, implementation, and evaluation of quality indicators for patient safety and other patient outcomes. Evaluates patient safety and quality indicators for their sensitivity and specificity to clinical care. Addresses the role of leadership in error prevention and maintenance of a culture of patient safety.

HCIN 600: POPULATION HEALTH ANALYTICS

Analytics

This course explores methods for measuring and analyzing the burden of disease in populations. Students will apply various data sets including disease registries, electronic health records, claims data, and socio-economic data; to measure, trend, and analyze, the impact of disease on various populations.

HCIN 610: ADVANCED LEADERSHIP AND SYSTEMS MANAGEMENT

Leadership

This course explores theoretical and applied principles of leadership in complex health care delivery systems. Students will explore health care organizations to determine how leadership, technology, and system complexity affects care delivery. Students will examine how learning health care systems management differs from traditional systems management and the benefits they offer to complex delivery systems.

HCIN 615: ADVANCED HEALTH CARE ANALYSIS

Analytics

This course will explore methods and tools to address a variety of health care issues by leveraging data to design, solve, and test a data-driven hypothesis. This course will explore the application of quantitative and qualitative data to evaluate programs and research studies. Students will also examine data stewardship and data governance roles in organizations that employ enterprise data warehouses (EDW). Data security and privacy are examined from the health care data analyst role. Additional course topics include emerging trends in health care, data science, and bioinformatics.

HCIN 625: DIGITAL HEALTH CARE MARKETING

Leadership

This course will explore marketing principles and methods utilized in the health care industry from the perspective of a health care leader. Students will learn how to assess market needs for health care organizations and service lines. Course will include case studies to understand ethical, regulatory, and liability issues in health care marketing. Additional course topics include web-based advertising, management of marketing staff, and website design.

HCIN 630: HEALTH CARE LAW AND RISK MANAGEMENT

Leadership

This course explores laws encountered by health care managers and strategies to reduce liability to health care organizations. Case studies will assist the Student to examine legal and ethical issues encountered when managing health care delivery systems. This course will examine laws and regulations that govern the relationships between health care providers and entities, the management of employees and medical staff who deliver patient care, labor relations, the management of information, patient rights and responsibilities, and tort law. Students will research an area of health care liability and develop a plan to mitigate risk in the health care setting.

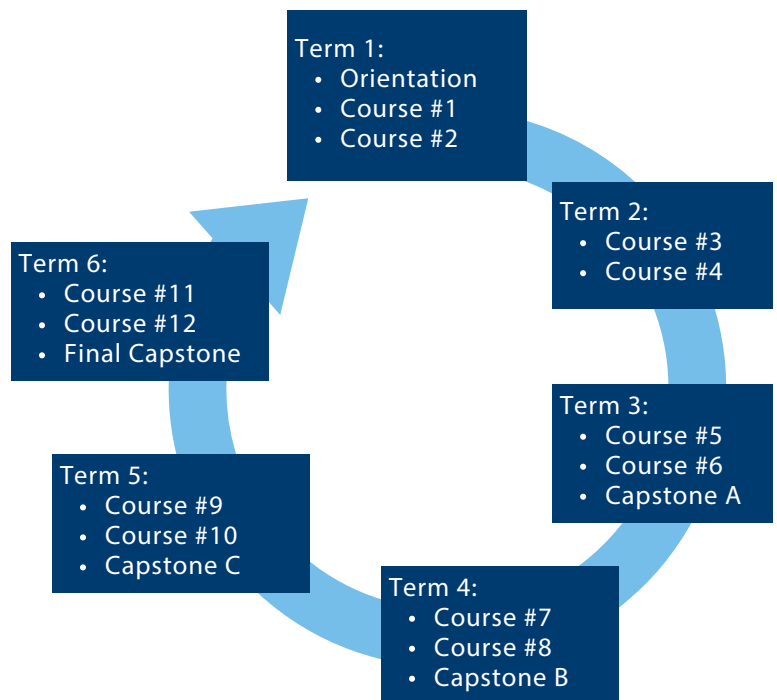
UNDERSTANDING THE COURSE CAROUSEL

Courses in the MS-HCI program are scheduled on a carousel, which allows new students to start at any time. All students will take foundational courses during their first term, which will prepare them for the courses to follow.

The academic year is comprised of three 14-week terms, with breaks from one to three weeks between each term:

- Fall - courses start in August
- Spring - courses start in January
- Summer - courses start in May

Students will take two 7-week courses each term. Courses are offered sequentially.



FREQUENTLY ASKED QUESTIONS

How long will it take me to complete my degree program?

The MS-HCI is a 37-unit program designed to be completed in 6 semesters (23 months). If you need to take a break from your coursework for any reason your path to graduation will be delayed.

Do I need to have healthcare or IT experience?

The foundational courses in term 1 will prepare all students for success in the program, regardless of experience. Those new to healthcare will also be required to complete a medical terminology course .

Is there any requirement to come to campus?

The MS-HCI program is 100% online. There is no on-campus requirement. However, we do hope you and your family can join us on campus for commencement. If you are ever in the San Diego area we hope you'll stop by for a tour of our beautiful campus.

How much time should I expect to spend each week?

Most students set aside about 20 hours per week to complete their assignments and participate in the discussion board.