

Course Descriptions
Master of Science in Health Informatics
2018-2019

CAPS 08106 Professional Track

3 credit hours

This capstone course provides students with an integrative learning experience and a synthesis of knowledge combining theory and applications of health informatics and healthcare delivery. This course builds upon previous coursework and includes applications of theories to practical issues in the field of health informatics.

Pre-requisites: all didactic coursework up to last trimester. May be taken with one elective.

HLTI 05100 Introduction to Healthcare Information Technology

3 credit hours

This elective course will provide an introduction to computer systems used in healthcare. Such topics as hardware, software, networks, databases, clinical applications, and security will be covered.

Pre-requisites: This is a required elective for students lacking a strong IT background.

HLTI 05101 Information Systems Management

3 credit hours

This course covers the fundamental concepts of managing an organization's information systems portfolio. Topics include the entire lifecycle of information technologies in a typical healthcare environment. This includes the need for technology, requesting, selecting, acquiring, implementing, and supporting information technology solutions. Complementary topics such as information security, IT governance, and enterprise architecture are included.

Pre-requisites: HLTS 05101 Intro to HI

HLTI 05102 Systems Analysis and Design

3 credit hours

This course explores the development of healthcare information systems through the use of a systems development lifecycle. It will assist the learner in examining the techniques and core skills used to develop an information system. This course will examine the four phases all information system design projects move through: Planning, analysis, design and implementation. Additional areas that must be considered when developing an information system, such as change management and team building, will also be covered.

Pre-requisites: HLTS 05101 Intro to HI

HLTI 05103 Consumer Health Informatics

3 credit hours

This course focuses on the information and technologies used by consumers to manage their health. Topics include such things as health literacy, quality of consumer health information, and Internet-based information delivery.

Pre-requisites: HLTS 05101 Intro to HI

HLTI 05201 Data Management in Healthcare

3 credit hours

This course acquaints the student with data principles and their application to healthcare information system selection and usage. It introduces the Data-Information-Knowledge-Wisdom framework as the essence of data management, driving data capture and use in the standardization of evidenced-based practices and patient-centered care. Topics include big data, knowledge management, quality analysis, surveillance, and interoperability, as well as data warehousing and data mining.

Pre-requisites: HLTS 05101 Intro to HI

HLTI 05202 Legal and Ethical Issues in Health Informatics 3 credit hours

This course introduces students to the ethical, legal, and regulatory issues relevant to the use of information technology in healthcare. Topics include such things as protection of patient information, intellectual property, computer and software law, professional ethics and responsibilities, and regulatory issues that impact the management of electronic health information.

Pre-requisites: HLTS 05101 Intro to HI

HLTI 06102 Leadership Skills for Health Informatics Professionals 3 credit hours

The purpose of this course is to prepare students to become successful leaders in a healthcare setting. Those already in leadership roles will further their leadership skills. Students will apply leadership theories, concepts, and skills in case studies and analyses of known leaders, and also in assessment of their own leadership potential.

Pre-requisites: HLTS 05101 Intro to HI

HLTM 05202 Project Management 3 credit hours

This course provides a comprehensive foundation of the theory and concepts of project management. Included is a focus on the initiation, planning, executing, monitoring and controlling, and closure phases of a typical healthcare information technology project. Emphasis is given to practical tools and techniques that will allow the HIT professional to repeatedly conduct successful healthcare projects.

Pre-requisites: HLTS 05101 Intro to HI

HLTM 05203 Business and Financial Skills for Health Informatics Professionals 3 credit hrs.

This course will focus on the critical business and financial skills/processes needed in the acquisition and management of health information systems and other technologies. It extends traditional project management skills to include specialized skills including the development of vendor relationships, the request for proposal process, contractual considerations, and the budgetary processes behind IT operational and strategic decision making. This course also reviews the business and financial considerations of forming and operating health information technology ventures.

Pre-requisites: HLTS05101 Intro to HI; HLTM05202 Project Mgmt; HLTI05101 Information Systems Mgmt

HLTS 05101 Introduction to Health Informatics 3 credit hours

This course will provide an overview of health informatics focused on a variety of introductory subjects such as an overview of the health informatics field, privacy and security, the electronic health record, clinical decision support systems, healthcare's technical infrastructure, the e-patient, patient safety/quality initiatives, and standardization of healthcare data.

Pre-requisites: N/A

HLTS 05102 Foundations in Healthcare 3 credit hours

This course will provide an overview of the U.S. healthcare system to any student with little or no healthcare background. Medical terminology, medical specialties, documentation standards, and health information lifecycles are introduced. The student will also have the opportunity to experience hands-on use of an electronic health record.

Pre-requisites: N/A

RMET 05101 Research Methods in Healthcare

3 credit hours

In this course, students will learn to evaluate the scientific/clinical literature for reliability and validity as well as the potential clinical significance of research results. Students will learn how to: identify limitations of research findings and recognize the multiple sources of research design error and researcher bias, how to evaluate reliable research study designs and experiments, how to create the various types of study designs and understand when each design is appropriate, how to write and test hypotheses, and how to find, correctly cite, and analyze peer-reviewed literature.

Pre-requisites:

Students in the MSHI program must complete 6 courses prior to taking this course.

Students in the MSNHP program must complete 4 courses prior to taking this course.