

Course Descriptions
Master of Science in Health Informatics
2017-2018 Academic Catalog

CAPS08106 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.

Prerequisites: all didactic coursework up to last trimester. May be taken with one elective.

HLTI05100 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.

Prerequisites: This is a required elective for students lacking a strong IT background.

HLTI05101 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.

Prerequisites: HLTS 05101 Introduction to Health Informatics

HLTI05102 Systems Analysis and Design

3 credit hours

This course explores the development of healthcare information systems through the use of a systems development lifecycle. Topics include such things as popular system development lifecycles in use today, feasibility study, requirements gathering, systems analysis, alternatives analysis, system design, implementation considerations, prototyping, documentation, and turning a completed information system over to ongoing support. Systems analysis and design methods will be applied to assignments and projects.

Prerequisites: HLTS 05101 Introduction to Health Informatics, HLTI 05101 Information Systems Management, and HLTI 05201 Data Management in Healthcare

HLTI05103 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.

Prerequisites: HLTS 05101 Introduction to Health Informatics

HLTI05201 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.

Prerequisites: HLTS 05101 Introduction to Health Informatics

HLTI05202 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.

Prerequisites: HLTS 05101 Introduction to Health Informatics

HLTI05203 Current Topics in Health Informatics 3 credit hours

As changes occur rapidly in the health information technology industry, this course will cover the hot topics for the year that were not fully captured in other courses.

Prerequisites: HLTS 05101 Introduction to Health Informatics, HLT I 05101 Information Systems Management, and HLT I 05201 Data Management in Healthcare

HLTI06102 Leadership Skills for Health Informatics Professionals 3 credit hours

This course provides the tools for students to analyze their leadership style and skills within the context of healthcare. The course includes the study and application of leadership theories, concepts, and skills.

Prerequisites:

HLTI06103 Experiential Learning in Health Informatics 3 credit hours

This course provides hands on experience with educational health information software, which will help students with no practical involvement in health IT to prepare for the workforce.

Prerequisites: HLTS 05101 Introduction to Health Informatics, HLT I 05101 Information Systems Management, HLT I 05201 Data Management in Healthcare, and HLTS 05102 Foundations in Healthcare (if needed)

HLTM05202 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.

Prerequisites: HLTS 05101 Introduction to Health Informatics

HLTM05203 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.

Prerequisites: HLTM05202 Project Management, HLT I 05101 Information Systems Management

HLTS05101 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

HLTS05102 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 electronic health records.

Pre-requisites: N/A