Healthcare Information Systems (HCIS)

Courses

HCIS 225 Healthcare Data Analytics (2 Hours)
This course presents data analytics focused on the key needs of healthcare. Data analytics has been defined as the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions. Although the focus of health IT in recent years has been on electronic health record (EHR) implementation and capturing and sharing of data, work in the future will shift to putting that data and information to use improving individual health and healthcare delivery. As the quantity and complexity of healthcare data grow through EHR data capture, genomics and other sources, the number of facts per clinical decision will increase, requiring increasing support for those making decisions.

HCIS 235 Care Coordination and Interoperable Health IT Systems (2 Hours)
This course discusses care coordination as deliberate organization of patient care activities between two or more participants involved in a patient's care (including the patient) to facilitate the appropriate delivery of healthcare services. This course provides an overview of interoperable health information technology (IT) that is patient-centered making the right data available to the right people at the right time, across products and organizations, in a way that can be relied upon and meaningfully used by recipients. The ability to seamlessly share health information is essential to building a patient-centered, interoperable health IT ecosystem in the United States, thus facilitating coordination of care.

HCIS 245 Population Health (2 Hours)
This course discusses the role of health information technology (IT) and emerging data sources in deriving population health solutions and explains their application in the context of population health management.

HCIS 255 Technology Concepts and Cybersecurity in Healthcare (2 Hours)
This course provides a basic overview of computing concepts related to the healthcare sector. Topics include computing terminology, computer architecture, cybersecurity and networking and data communication. The design and development of a large healthcare computing system is discussed, including the electronic health record. 2 hrs. lecture/wk.

HCIS 262 Customer Service in the Health Environment (2 Hours)
This course introduces the skills necessary to communicate effectively across the full range of roles that will be encountered in healthcare and public health settings. Appropriate customer service skills, effective written and oral communication, and ethical and cultural awareness are emphasized. 2 hrs. lecture/wk.

HCIS 263 Working with Health Information Technology (HIT) Systems (2 Hours)
This course is powered by Cerner architecture to give students an opportunity to work with real technology used in the healthcare environment. This course focuses on the end user experience with emphasis also placed on standards, system usability, security and integration. 2 hrs. integrated lecture/lab/wk.

HCIS 264 Configuration and Implementation of Electronic Health Records (2 Hours)
This course is powered by Cerner architecture to give students an opportunity to experience real-world tasks in the role of a configuration/implementation analyst in the health information technology (HIT) workplace. This course focuses on designing and building a system with emphasis placed on implementation and configuration. 2 hrs. integrated lecture/lab/wk.

HCIS 265 Installation and Maintenance of Health IT Systems (2 Hours)
This course is powered by Cerner architecture to give students an opportunity to experience real-world tasks typically performed by an electronic health record (EHR) system administrator or support technician. Topics include testing prior to implementation, system configuration and system support. 2 hrs. integrated lecture/lab/wk.

HCIS 267 EHR Design, Functionality and Usability (3 Hours)
This course discusses human factors associated with designing and implementing health information systems. Concepts of usability and the effects of new technology and workflow redesign on downstream processes, such as clinical decision support, will be covered. This course provides an overview of the most utilized electronic health systems. System features are evaluated and compared as they would relate to practical deployments. Key factors such as cost, licensing and staffing are also discussed.

HCIS 270 Health Information Systems Internship* (2 Hours)
Prerequisites : Department approval.
Students will work in an approved training situation under instructional supervision. The internship is designed to give the student the opportunity to use the knowledge and skills acquired in the healthcare information systems (HCIS) courses. An average of 40-60 onsite hours will be required along with class assignments for a total of 90 hrs./semester.

HCIS 271 The Culture of Healthcare (2 Hours)
This course introduces students to job expectations in healthcare settings. Topics also include the organization of care inside a practice setting, privacy laws, the changing environment of healthcare delivery, and professional and ethical issues. 2 hrs. lecture/wk.

HCIS 272 Terminology in Health Care Settings (2 Hours)
This course introduces students to terminology and clinical procedures associated with body systems. It also covers terminology related to health information management (HIM), health information technology (HIT), and public health. 2 hrs. lecture/wk.

HCIS 273 Quality Improvement in Healthcare (2 Hours)
This course introduces the concepts of health information technology (IT) and practice workflow redesign as instruments of quality improvement (QI). Students will learn methods to establish a culture that supports increased quality and safety in healthcare and be introduced to the principles of value-based care and patient engagement. Approaches to assessing patient safety issues and implementing quality management and reporting through electronic systems will be discussed.

HCIS 274 Healthcare Workflow Analysis and Redesign (2 Hours)
This course introduces healthcare workflow analysis and redesign as a necessary component of complete practice automation. The topics of process validation and change management are also covered. 2 hrs. lecture/wk.

HCIS 277 Training and Instructional Design (2 Hours)
This course provides participants with essential knowledge and skills to deliver training to adult learners implementing electronic health records (EHRs) in a variety of healthcare settings. The Instructional Systems Design (ISD) model, which includes analysis of the learner and learning environment, design and development of customized education, implementation of the training plan and evaluation of the training program's effectiveness, will be used. 2 hrs lecture/wk.