

HEALTHCARE INFORMATICS (HCI)

HCI 3000 | Health Care Systems and Organizations

Lecture Credit: 3

Provides an overview of the healthcare delivery system at the national, state, and local level. This course covers healthcare education, including applicable regulations and standards, reimbursement methods, and evolution of current trends in healthcare delivery.

HCI 3005 | Healthcare Coding and Records

Lecture Credit: 3

Presents medical coding and records from the perspective of the non-coding professional. This course focuses on coding systems, coded data utilization, coding, and reimbursement. Additionally, this course discusses information governance, legal and policy frameworks, and ethical coding standards.

HCI 3010 | Healthcare Information Technology and Electronic Health Records

Lecture/Lab Credit: 3

Covers Information Technology (IT) principles as they relate to the health care environment including hardware, networking, and security features. This course focuses on Electronic Health Records (EHR) concepts and practices in relation to health care workflow and utilization.

Prerequisite: CIS 1018 with a grade of C or better

Corequisite: HCI 3011

HCI 3011 | Health Information Systems Management

Lecture Credit: 3

Covers major concepts, systems, and methodologies in managing health care information systems. This course focuses on concepts of health care data quality, health care information, and the associated regulations, laws, and standards. This course covers clinical information systems, systems acquisition, implementation, support, and security of health care information systems.

Corequisite: HCI 3010

HCI 4000 | Epidemiology and Biostatistics

Lecture Credit: 4

Covers epidemiological and biostatistical principles, concepts, and procedures for the surveillance and investigation of health-related states or events. This course focuses on data collection and disease prevalence analysis for effective medical decision-making. Additionally, it covers sources of information, associations between diseases and etiological factors, and statistical representations of findings.

Prerequisite: MAT 1260 and BIO 1016 with a grade of C or better

HCI 4005 | Programming for Health Informatics

Lecture Credit: 3

Builds on previous programming and statistical course work to grow in data analysis skills. The course covers the application of programming skills to prepare, process, and visualize healthcare data. Data cleaning, arrangement, and visualization are emphasized.

Prerequisite: CSC 1019 with a grade of C or better

Corequisite: HCI 4006

HCI 4006 | Analytics for Healthcare

Lecture/Lab Credit: 3

Provides the foundational skills in healthcare data analytics. This course covers data-mining concepts, techniques, and applications to improve healthcare performance quality. Additionally, this course covers effective communication of analytic findings to specific audiences.

Prerequisite: CIS 2040 with a grade of C or better

Corequisite: HCI 4005

HCI 4015 | Legal and Ethical Issues in Health Informatics

Lecture Credit: 3

Covers concepts and principles of law and regulations in the healthcare field. The course focuses on legal issues regarding health information, including confidentiality, release of health information, consent forms, liability of healthcare providers, concepts and methods of risk management in the healthcare field, and other current medical/legal issues.

HCI 4020 | Healthcare Quality Management

Lecture Credit: 3

Focuses on the fundamentals of quality management, performance improvement, and patient safety.

HCI 4025 | Project Management for Technology in Healthcare

Lecture Credit: 3

Introduces the concepts of project management for technology-based projects within healthcare contexts. This course focuses on the tools and techniques for project management, change management, and stakeholder communication for project-oriented tasks.

HCI 4030 | Research Methodology in Healthcare

Lecture Credit: 3

Covers the fundamentals of research and program evaluation in a healthcare setting. This course covers qualitative and quantitative research methods, healthcare specific methodologies, and ethical considerations in healthcare research.

Prerequisite: HCI 4000 with a grade of C or better

HCI 4080 | Internship

Internship Credit: 3

Provides student with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

Prerequisite: HCI 3010, HCI 3011, HCI 4000, HCI 4005, and HCI 4006 with a grade of C or better

Corequisite: HCI 4025 and HCI 4030 (corequisites or prerequisites)

HCI 4089 | Capstone

Lecture Credit: 2

Provides a demonstrated culmination of learning within a given program of study.

Corequisite: HCI 4080