

INFORMATION SYSTEMS, MS HEALTH INFORMATICS SPECIALIZATION

The health informatics specialization operates at the convergence of IT and health care, where evidence-based medicine, intelligent medical records, and data are leveraged to fuel more efficient, patient-centered health care, payment reform, and improved population health. Assessing health informatics needs from clinical, technical, operational, and financial perspectives, students gain familiarity with the use of standards, information architecture, standard terminologies, and decision analysis in complex health care organizations. Students develop insights into clinical care processes and how IT impacts patients, health care providers, caregivers, and other key stakeholders in a rapidly evolving health care environment.

Curriculum

Core Courses (4 units)

Course	Title
CIS 413-DL	Telecommunications and Computer Networks
CIS 414-DL or MSDS 430-DL	Object Oriented Programming Python for Data Analysis
CIS 417-DL	Database Systems Design & Implementation
CIS 498-DL or CIS 590-DL	Computer Information Systems Capstone Project Capstone Research

Specialization Courses (7 units)

Course	Title
MHI 402-DL	Introduction to Clinical Thinking
MHI 403-DL	Fundamentals of Health Informatics
MHI 405-DL	HIT Standards and Interoperability
MHI 406-DL	Decision Support Systems and Health Care

Any three electives

CIS 419-DL	Web Application Development
CIS 431-DL	Database Administration
CIS 435-DL	Practical Data Science Using Machine Learning
CIS 436-DL	Data and Digital Platforms
CIS 452-DL	Cybersecurity Attacks and Counter Measures
CIS 453-DL	Enterprise Security Strategy
CIS 455-DL	Disaster Recovery and Continuity
CIS 457-DL	Management of Information Security
CIS 460-DL	Information Technology Management
CIS 465-DL	Information Technology Strategy
CIS 471-DL	Digital Transformation: Strategy and Planning
CIS 473-DL	Digital Technologies
CIS 475-DL	Leading Digital Transformation Execution
CIS 477-DL	Enterprise Architecture
CIS 495-DL	Enterprise Agility Frameworks
CIS 496-DL	Business Writing and Communication
CIS 497-DL	Information Technology Finance
MSDS 475-DL	Project Management

About the Final Project

Students may pursue their capstone experience independently or as part of a team. As their final course, students take either the individual research project in an independent study format or the classroom final project class in which students integrate the knowledge they have gained in the core curriculum in a project presented by the instructor. In both cases, students are guided by faculty in exploring the body of knowledge on information systems while contributing research of practical value to the field. The capstone independent project and capstone class project count as one unit of credit.

Course	Title
Choose one	
CIS 498-DL	Computer Information Systems Capstone Project
CIS 590-DL	Capstone Research