HEALTH INFORMATICS, MS CLINICAL INFORMATICS SPECIALIZATION

The Clinical Informatics specialization is designed to prepare students to master the knowledge and skills reflected in the core content for clinical informatics approved by the American Medical Informatics Association (AMIA), which defines the boundaries of the discipline and informs the program requirements for fellowship education in clinical informatics. This specialization also prepares students for board certification in medical informatics, a designated medical subspecialty.

Curriculum

Core Courses (5 units)

Course	Title
MHI 401-DL	American Health Care System
MHI 403-DL	Fundamentals of Health Informatics
MHI 407-DL	Legal, Ethical, and Social Issues
MSHA 480-DL	Health Analytics Leadership
MHI 498-DL	Capstone Project
or MHI 590-0	Thesis Research

Specialization Courses (7 units)

Course	Title
MHI 405-DL	HIT Standards and Interoperability
MHI 406-DL	Decision Support Systems and Health Care
MS_IDS 452-DL	Intro to Data Collection and Analytics
CIS 413-DL	Telecommunications Networks
Any three electives	
MHI 402-DL	Introduction to Clinical Thinking
MHI 404-DL	Health Care Organization Operations
MHI 408-DL	Information System Acquisition & Lifecycle
MHI 413-DL	Consumer Digital Health
MSHA 405-DL	Data Literacy and Analytics in Healthcare
or CIS 417-DL	Database Systems Design & Implementation
MSHA 409-DL	Statistical Analysis
MSHA 412-DL	Feature Engineering and Text Mining
or MS_IDS 453-DL	Introduction to Techniques of Predictive Analytics
MSHA 422-DL	Artificial Intelligence and Practical Machine Learning
CIS 436-DL	Big Data Management and Analytics
CIS 494-DL	Project Management Concepts
MSDS 402-DL	Introduction to Data Science
MSDS 475-DL	Project Management
MS_IDS 401-DL	Models and Theories of User-Centered Design
MS_IDS 409-DL	Data Management Principles
MSGH 417-DL	Global Health Systems
MSGH 458-DL	Global Health and Technology

About the Final Project

As a culminating experience, students will put into practice the knowledge and skills they have learned during their coursework through a Capstone Project. Students will have the opportunity to develop and implement a Health Informatics project with an industry or university partner or in their workplace. Alternatively, students can develop a culminating, two-part project. This alternative capstone project will leverage health informatics to provide an innovative, consultative response to a need or problem arising as part of a real-world case study. The project will challenge each student to conduct and integrate comprehensive research and to apply knowledge, skills, and competencies built through coursework they have completed in the MHI program.

In addition to each student's individual research and project development, the course emphasizes collaboration with fellow students by using the Canvas discussion board to crowdsource strategies and approaches for their Capstone Project. Each student will work with the instructor to establish an "Advisory Committee" for their project which, ideally, will be comprised of a "Knowledge Expert" from the organization they are working with and a faculty advisor from the Northwestern University Health Informatics program.

Course	Title
Choose one	
MHI 498-DL	Capstone Project
MHI 590-0	Thesis Research