HEALTH CARE INFORMATICS, MS

The Master of Science in Health Care Informatics degree focuses on the use of information technologies, data analytics and automation to improve health care. Professional expertise in health care informatics is needed by hospitals and other health care providers, medical centers and facilities, medical software companies, pharmaceutical companies, public health organizations, health insurance companies and medical research institutions. The master's program is designed to meet the demand for highly trained health care informatics professionals. The curriculum covers several areas including: systems analysis and design, database design and management, clinical decision support and computer programming. Students also get exposed to cutting-edge research in areas such as big data, predictive analytics, natural language processing, medical knowledge representation and information retrieval, which are rapidly becoming indispensable for improving health care.

The program is designed for both **full-time and part-time** students. Courses are **offered both face-to-face and online**. Mid-career professionals can use the fully online option for completing the degree.

Admission Requirements

Application Deadlines

Application deadlines vary by program, please review the application deadline chart (http://uwm.edu/graduateschool/program-deadlines/) for specific programs. Other important dates and deadlines can be found by using the One Stop calendars (https://uwm.edu/onestop/dates-and-deadlines/).

Admission

An applicant must meet Graduate School requirements (http://uwm.edu/graduateschool/admission/) and submit GRE scores taken within the past five years (GRE requirement will be waived for applicants who already hold another master's degree or PhD, or the equivalent). No specific undergraduate major is necessary for admission. A typical applicant will have a background in a health-related field or in an information/computer-related field, but applicants from other academic or professional backgrounds are welcome to apply and will be considered on a case-by-case basis.

Credits and Courses

The Master of Science in Health Care Informatics degree will be awarded upon completion of appropriate 33 credits (non-thesis option) or 36 credits (thesis option) of prescribed graduate study; 24 credits of core courses and 6 credits of electives are required, plus either 3-credit HI 891 or 6-credit HI 890.

Code	Title	Credits
Core		
HI 700	Introduction to Health Care Informatics	3
HI 741	Essential Programming for Health Informatics	3
HI 723	Health Care Systems Applications - Administrative and Clinical	3
HI 722	Legal, Ethical and Social Issues in Health Care Informatics	3
HI 740	Introduction to Biomedical Database Applications	3
HI 742	Computational Intelligence in Health Informatics	3
HI 745	Health Big Data Processing Platforms	3
PH 801	Seminar in Public Health Research	3
Electives		
Select two of the following: [1]		6
HCA 541G	Healthcare Information Systems Analysis and Design	
HI 760	Biomedical and Healthcare Terminology and Ontology	
PH 702	Introduction to Biostatistics	
HI 743	Predictive Analytics in Healthcare	
HI 744	Text Retrieval and Its Applications in Biomedicine	
HI 776	Biomedical Natural Language Processing	
HI 789	Biomedical Information Extraction	
HS 917	Seminar in Health Outcomes Assessment	
Project or Thesis		
HI 890	Health Care Informatics Research and Thesis	3-6
or HI 891	Health Care Informatics Professional Project	
Total Credits		**33-36**

[1] Electives other than those listed below are to be approved by the student's major professor.

Thesis/Project Options

Option A: Project Option

The Project option requires students to apply health informatics research and theory to a professional situation. The project must be undertaken in compliance with program requirements under the supervision of a HCI major professor. Students who choose this option count 3 credits of HI 891 toward the required 33-graduate-credit minimum.

Option B: Thesis Option

The thesis option requires students to plan, design, execute and report results of original applied or basic research. Students who choose the thesis option are responsible for identifying a HCI major professor and a thesis committee. The thesis committee should consist of the major professor and at least two other graduate faculty. The student must pass a comprehensive oral examination in defense of the completed thesis. Students who choose this option count 6 credits of HI 890 toward the required 36-graduate-credit minimum.

Additional Requirements

Major Professor as Advisor

A student must have a major professor to advise and supervise the student's studies as specified in Graduate School regulations. Initially the director of the HCI Program advises and supervises newly admitted students. Students are then assigned faculty advisors according to faculty advising loads.

Program Completion Time Limit

The student must complete all degree requirements within five years of initial enrollment.