HEALTH INFORMATICS - M.S.

College of Sciences and Humanities
School of Information
www.kent.edu/iSchool

About This Program

Looking to make a difference in healthcare? The M.S. degree in Health Informatics prepares graduates for careers at the intersection of healthcare and technology. With a focus on data analytics and information management, our program prepares graduates to use data and information to improve patient outcomes and drive innovation in healthcare. Read more...

Contact Information

- **Meghan Harper** | iSchool@kent.edu | 330-672-2782
- Connect with an Admissions Counselor

Program Delivery

- **Delivery:**
  - Fully online

Examples of Possible Careers and Salaries*

Computer and information research scientists

- 19.7% much faster than the average
- 40,300 number of jobs
- $140,910 potential earnings

Computer and information systems managers

- 15.2% much faster than the average
- 667,100 number of jobs
- $171,200 potential earnings

Database administrators

- -0.7% little or no change
- 78,000 number of jobs
- $104,620 potential earnings

Database architects

- 8.7% much faster than the average
- 66,900 number of jobs
- $135,980 potential earnings

Accreditation

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

- Bachelor's degree from an accredited college or university
- Minimum 2.750 undergraduate GPA[1] on a 4.000-point scale
- Official transcript(s)
- Résumé
- Goal statement
- Two letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive) by earning one of the following:[2]
  - Minimum 94 TOEFL iBT score
  - Minimum 7.0 IELTS score
  - Minimum 65 PTE score
  - Minimum 120 DET score

[1] Applicants who do not meet the minimum 2.750 GPA requirement must submit a statement that addresses the circumstances that contributed to the GPA and preparation for success in graduate study. Applicants should include recent professional achievements that indicate an ability to perform at a higher academic level to be considered for conditional admission to the program.

[2] International applicants who do not meet the above test scores will not be considered for admission.

Application Deadlines

- **Fall Semester**
  - Application deadline: April 15
- **Spring Semester**
  - Application deadline: November 15
- **Summer Term**
  - Application deadline: March 15

All application materials (including applicable fee, transcripts, recommendation letters, etc.) submitted after these deadlines will be considered on a space-available basis.

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements		
HI 60401	HEALTH INFORMATICS MANAGEMENT	3
HI 60402	LEGAL ISSUES IN HEALTH INFORMATICS	3
HI 60403	HEALTH INFORMATION SYSTEMS	3
HI 60410	HEALTH RECORDS MANAGEMENT	3
HI 60411	CLINICAL ANALYTICS	3
HI 60414	HUMAN FACTORS AND USABILITY IN HEALTH INFORMATICS	3
HI 60636	STANDARDIZED TERMINOLOGIES IN HEALTHCARE	3

Major Electives, choose from the following: [1]		9-12
EMAT 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS	
KM 60301	FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT	
KM 60370	SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES	
LIS 50645	DATABASE FUNDAMENTALS FOR INFORMATION PROFESSIONALS	
LIS 60620	HEALTH INFORMATION RESOURCES	
LIS 61095	SPECIAL TOPICS IN INFORMATION STUDIES	
UX 60511	INFORMATION ARCHITECTURE FUNDAMENTALS	
UX 60541	USER EXPERIENCE EVALUATION FUNDAMENTALS	
Any Health Informatics (HI) Courses (50000 level or above) [2]		
Culminating Requirement		
Choose from the following: [1]		3-6
HI 66092	MASTER'S INTERNSHIP IN HEALTH INFORMATICS	
HI 66099	MASTER'S PROJECT IN HEALTH INFORMATICS	
HI 66198	MASTER'S RESEARCH PAPER IN HEALTH INFORMATICS	
HI 66199	THESIS I	
Minimum Total Credit Hours:		**36**

[1] Students selecting HI 66199 as their culminating requirement will complete 9 credits of major electives. Students selecting HI 66092, HI 66099 or HI 66198 will complete 12 credit hours of major electives.

[2] A maximum 4 credit hours of HI 60693 and a maximum 6 credit hours of HI 61096 may be applied towards the degree.

Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
-	3.000

- No more than one-half of a graduate student's coursework may be taken in 50000-level courses.
- Grades below C are not counted toward completion of requirements for the degree.

Program Learning Outcomes

Graduates of this program will be able to:

1. Reconcile the needs of clinical and non-clinical users of health information systems utilizing workflow analysis, systems analysis and project management principles.
2. Analyze collected data of health information systems, utilizing principles of data mining, statistics and clinical analytics.
3. Manage the implementation of health information systems in multiple health care venues using principles of organizational dynamics and change management.
4. Facilitate communication between clinical and non-clinical users of health information systems.
5. Successfully obtain the credential of Certified Associate in Health Information Systems.

Dual Degree with M.P.H. in Epidemiology

Students have the opportunity to complete a dual degree program with the M.P.H. degree in Epidemiology and the M.S. degree in Health Informatics. A separate application must be submitted for each program. Students can view admission requirements for each program on their respective catalog page.

The fully online dual degree prepares students for careers at the intersection of public health, data science, healthcare technology and disease prevention and response. Students learn how to build and manage health data systems and analyze and interpret public health data.

Dual Degree Requirements

Code	Title	Credit Hours
Major Requirements		
BST 62019	BIOSTATISTICS IN PUBLIC HEALTH	3
BST 63014	APPLIED REGRESSION ANALYSIS OF PUBLIC HEALTH DATA	3
EHS 62018	ENVIRONMENTAL HEALTH CONCEPTS IN PUBLIC HEALTH	3
EPI 62017	FUNDAMENTALS OF PUBLIC HEALTH EPIDEMIOLOGY	3
EPI 63014	EPIDEMIOLOGY OF CHRONIC DISEASES	3
or EPI 63015	EPIDEMIOLOGY OF INFECTIOUS DISEASES	
EPI 63016	PRINCIPLES OF EPIDEMIOLOGIC RESEARCH	3
HI 60401	HEALTH INFORMATICS MANAGEMENT	3
HI 60402	LEGAL ISSUES IN HEALTH INFORMATICS	3
HI 60403	HEALTH INFORMATION SYSTEMS	3
HI 60410	HEALTH RECORDS MANAGEMENT	3
HI 60411	CLINICAL ANALYTICS	3
HI 60414	HUMAN FACTORS AND USABILITY IN HEALTH INFORMATICS	3
HI 60636	STANDARDIZED TERMINOLOGIES IN HEALTHCARE	3
HPM 62016	PUBLIC HEALTH ADMINISTRATION	3
HPM 63020	COMMUNITY HEALTH NEEDS ASSESSMENT	3
SBS 64634	SOCIAL DETERMINANTS OF HEALTH BEHAVIORS	3
Health Informatics (HI) Graduate Electives (50000 level or higher) [1]		6
Major Electives, choose from the following: [1]		6
BST 60010	USING R IN PUBLIC HEALTH	
BST 60011	USING SAS IN PUBLIC HEALTH	
BST 60012	USING EXCEL IN PUBLIC HEALTH	
BST 62020	DATA MANAGEMENT AND LOGIC USING SAS® SOFTWARE	
BST 63012	SURVIVAL ANALYSIS IN PUBLIC HEALTH	
BST 63013	EXPERIMENTAL DESIGNS IN PUBLIC HEALTH RESEARCH	
EHS 52100	CLIMATE CHANGE AND POPULATION HEALTH	
EHS 53014	BUILT ENVIRONMENT AND PUBLIC HEALTH	
EMAT 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS	
EPI 50017	PHARMACOEPIDEMIOLOGY	
EPI 50018	REGULATORY AFFAIRS IN CLINICAL RESEARCH	
EPI 52010	UNDERSTANDING THE COVID-19 PANDEMIC	

EPI 63019	EXPERIMENTAL DESIGNS FOR CLINICAL RESEARCH	
EPI 63020	ADVANCED EPIDEMIOLOGY AND CLINICAL RESEARCH METHODS	
EPI 63021	ETHICAL ISSUES IN PUBLIC HEALTH AND CLINICAL RESEARCH	
EPI 63034	LONGITUDINAL DATA ANALYSIS	
GEOG 59070	GEOGRAPHIC INFORMATION SCIENCE	
GEOG 59071	FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE I	
GEOG 59072	GEOGRAPHIC INFORMATION SCIENCE AND HEALTH	
KM 60301	FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT	
KM 60370	SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES	
LIS 50645	DATABASE FUNDAMENTALS FOR INFORMATION PROFESSIONALS	
LIS 60620	HEALTH INFORMATION RESOURCES	
LIS 61095	SPECIAL TOPICS IN INFORMATION STUDIES	
UX 60511	INFORMATION ARCHITECTURE FUNDAMENTALS	
UX 60541	USER EXPERIENCE EVALUATION FUNDAMENTALS	
Any Health Informatics (HI) Graduate course (50000 level or higher) [1]		
Culminating Requirement		
EPI 60192	APPLIED PRACTICE EXPERIENCE IN EPIDEMIOLOGY [2]	2
PH 61199	INTEGRATIVE LEARNING EXPERIENCE	1
Health Informatics Elective, choose from the following:		3-6
HI 66092	MASTER'S INTERNSHIP IN HEALTH INFORMATICS	
HI 66099	MASTER'S PROJECT IN HEALTH INFORMATICS	
HI 66198	MASTER'S RESEARCH PAPER IN HEALTH INFORMATICS	
HI 66199	THESIS I	
Minimum Total Credit Hours:		**66**

[1] A maximum 4 credit hours of HI 60693 and maximum 6 credit hours of HI 61096 may be applied toward the degree.

[2] It is expected that students enrolled in EPI 60192 who do not complete the course in one term will continuously register for EPI 60292 each semester, until all requirements have been met. Credit hours for EPI 60292 do not apply toward the minimum total credit hours for the dual degree.

Dual Degree with M.S. in Clinical Epidemiology

Students have the opportunity to complete a dual degree program with the M.S. degree in Clinical Epidemiology and the M.S. degree in Health Informatics. A separate application must be submitted for each program. Students can view admission requirements for each program on their respective catalog page.

The fully online dual degree prepares students for careers at the intersection of clinical research, data science, healthcare technology and disease prevention and response. Students learn how to build and manage health data systems and analyze and interpret health data.

Dual Degree Requirements

Code	Title	Credit Hours
Major Requirements		
BST 62019	BIOSTATISTICS IN PUBLIC HEALTH	3
BST 63013	EXPERIMENTAL DESIGNS IN PUBLIC HEALTH RESEARCH	3
BST 63014	APPLIED REGRESSION ANALYSIS OF PUBLIC HEALTH DATA	3
EPI 62017	FUNDAMENTALS OF PUBLIC HEALTH EPIDEMIOLOGY	3
EPI 63016	PRINCIPLES OF EPIDEMIOLOGIC RESEARCH	3
EPI 63019	EXPERIMENTAL DESIGNS FOR CLINICAL RESEARCH	3
EPI 63020	ADVANCED EPIDEMIOLOGY AND CLINICAL RESEARCH METHODS	3
HI 60401	HEALTH INFORMATICS MANAGEMENT	3
HI 60402	LEGAL ISSUES IN HEALTH INFORMATICS	3
HI 60403	HEALTH INFORMATION SYSTEMS	3
HI 60410	HEALTH RECORDS MANAGEMENT	3
HI 60411	CLINICAL ANALYTICS	3
HI 60414	HUMAN FACTORS AND USABILITY IN HEALTH INFORMATICS	3
HI 60636	STANDARDIZED TERMINOLOGIES IN HEALTHCARE	3
Health Informatics (HI) Graduate Electives (50000 level or higher) [1]		6
Major Electives, choose from the following: [1]		6
BST 60010	USING R IN PUBLIC HEALTH	
BST 60011	USING SAS IN PUBLIC HEALTH	
BST 60012	USING EXCEL IN PUBLIC HEALTH	
BST 62020	DATA MANAGEMENT AND LOGIC USING SAS® SOFTWARE	
EMAT 51510	PROJECT MANAGEMENT AND TEAM DYNAMICS	
EPI 50015	SCIENTIFIC WRITING FOR CLINICAL RESEARCH	
EPI 50017	PHARMACOEPIDEMIOLOGY	
EPI 50018	REGULATORY AFFAIRS IN CLINICAL RESEARCH	
EPI 50196	INDIVIDUAL INVESTIGATION IN EPIDEMIOLOGY	
EPI 63014	EPIDEMIOLOGY OF CHRONIC DISEASES	
EPI 63015	EPIDEMIOLOGY OF INFECTIOUS DISEASES	
KM 60301	FOUNDATIONAL PRINCIPLES OF KNOWLEDGE MANAGEMENT	
KM 60370	SEMANTIC ANALYSIS METHODS AND TECHNOLOGIES	
LIS 50645	DATABASE FUNDAMENTALS FOR INFORMATION PROFESSIONALS	
LIS 60620	HEALTH INFORMATION RESOURCES	
LIS 61095	SPECIAL TOPICS IN INFORMATION STUDIES	
UX 60511	INFORMATION ARCHITECTURE FUNDAMENTALS	
UX 60541	USER EXPERIENCE EVALUATION FUNDAMENTALS	
Any Health Informatics (HI) Graduate course (50000 level or higher) [1]		
Culminating Requirement		
EPI 63192	RESEARCH PRACTICUM IN CLINICAL EPIDEMIOLOGY [2]	3-6
or EPI 63199	THESIS I	

Health Informatics Elective, choose from the following:		3-6
HI 66092	MASTER'S INTERNSHIP IN HEALTH INFORMATICS	
HI 66099	MASTER'S PROJECT IN HEALTH INFORMATICS	
HI 66198	MASTER'S RESEARCH PAPER IN HEALTH INFORMATICS	
HI 66199	THESIS I	
Minimum Total Credit Hours:		**60**

[1] A maximum 4 credit hours of HI 60693 and maximum 6 credit hours of HI 61096 may be applied toward the degree.

[2] All students will be required to present their thesis or research-based practicum to the College of Public Health and Health Sciences at a presentation day, either in person or using videoconferencing technology.

Full Description

The Master of Science degree in Health Informatics prepares graduates for careers in managerial, analytical, consultative and executive roles working with healthcare systems and clinicians. Health informatics is the science of evaluating, implementing and utilizing technology to manage all information related to the patient care delivery process: clinical, financial, technological and enterprise-wide.

Three major components comprise the health informatics discipline:

1. Information Systems: focuses on such issues as information systems analysis, design, implementation, management and leadership.
2. Informatics: concerned with the study of structure, function and transfer of information, socio-technical aspects of health computing and human-computer interaction.
3. Information Technology: focuses on computer networks, database and systems administration, security and programming.

The informatics field also draws contributions from computer science, the clinical sciences, social and organizational influences and business practices.