Master of Science in Health Informatics

Professionals in applied **Health Informatics** have skills in analysis, design, implementation, and evaluation of information systems that support a full range of clinical and patient care functions. Graduates will be prepared for entry and mid-level positions with hospital or clinic informatics departments, electronic health record (EHR) vendors, public health organizations, and as consultants and/or staff in organizations that specialize in knowledge management. Graduates also have the skills to enter the growing field of health information exchange, which includes regional health information organizations and the emerging personal health records. In addition to a foundation in applied health informatics, special skills will be acquired in organizational change, project management and impact evaluation.

This is an interprofessional program administered by the Center for Health Informatics (http://www.kumc.edu/health-informatics.html), which is sponsored by the School of Nursing.

The application process is an online process. Detailed instructions on how to apply and the application deadlines are posted on the Master of Science in Health Informatics (https://www.kumc.edu/research/ center-for-health-informatics/academics/master-of-science-in-healthinformatics.html) website.

Admission requirements:

- A bachelor's degree from a regionally accredited institution documented by submission of official transcript indicating the degree has been conferred before entering the program. Official transcripts from institutions attended post-baccalaureate are also required. Students with degrees from outside the U.S. may be subject to transcript evaluation indicating the degree is equivalent to a U.S. degree and meets the minimum cumulative GPA requirements.
- A cumulative grade-point average (GPA) of at least a 3.0 on a 4.0 scale.
- Applicants who are not native speakers of English, whether domestic or international, must demonstrate they meet the Minimum English Proficiency Requirement (https://catalog.ku.edu/graduate-studies/kumc/ #EnglishProficiencyRequirement).
- A current resume or curriculum vitae.
- A personal statement outlining the applicant's reasons for wanting to pursue graduate education in health informatics, career objectives, and any other information that would help the admissions committee get to know the applicant.
- Three letters of recommendation preferably from employers, instructors, or other persons who can assess the applicant's academic and professional potential. Letters are submitted per instructions provided for the online application process.
- A background check (https://www.kumc.edu/academic-andstudent-affairs/student-resources/criminal-background-checksfor-students.html) is required during the admission process; it may affect the student's eligibility to enter the program.
- A graduate level statistics course (may be completed prior to admission or during the first semester of enrollment.)

After an applicant has been admitted, a program may defer an applicant's admission for one year after which time the applicant must submit a new application.

International Students

Due to the number of required online courses for this degree, the Health Informatics Program at KUMC does not meet the U.S. student visa requirements at this time. Therefore, we are unable to accept individuals who are on student visas. If you are in the U.S. on another type of visa, please contact SONinfo@kumc.edu for additional application requirements.

Admission requirements are subject to change. In most cases, use the catalog (https://catalog.ku.edu/archives/) of the year student entered the program.

Master of Science in Health Informatics (MSHI) students complete courses in health informatics, leadership, and in one of the following focus areas: clinical leadership, health policy and management, public health, project management, or telehealth. The student and advisor will work closely together to develop a plan of study that meets the career goals of the student.

Degree requirements:

- Degree requirements can be completed within 2 years of admission to the program although a maximum of 7 years is allowed. Part-time students normally complete requirements within 3 years of admission to the program.
- Completion of a minimum of 35 credit hours.
- Cumulative grade-point average (GPA) of at least a 3.0 for all KU and KUMC graduate coursework.
- Successful completion of a general examination (https:// catalog.ku.edu/graduate-studies/kumc/#ThesisDefense) the semester the student will graduate.
- Enrollment in a minimum of one (1) credit hour the semester the student will graduate.
- Degree requirements and course descriptions are subject to change. Any courses taken as an equivalent must be approved by the Program Director and the Office of Graduate Studies. In most cases, use the catalog (https://catalog.ku.edu/archives/) of the year student entered the program.
- Successful completion of the Health Informatics courses (minimum 17 credit hours.) These courses provide the core knowledge and skills essential to the practice of health informatics.

Code	Title	Hours
IPHI 850	Introduction to Health Informatics	2
IPHI 851	Transforming Health Care through Use of Information Systems and Technology	3
IPHI 852	Health Data Theory and Practice	3
IPHI 853	Abstraction and Modeling of Healthcare Information	3
IPHI 854	Knowledge Management in Health Care	3
IPHI 856	Health Informatics Practicum	3

Successful completion of the **Leadership** courses. Choose a minimum of 9 credits (including one health policy course) from the following electives:

Code	Title	Hours
IPHI 820	Program, Project, and Communication Planning	2
NRSG 808	The Social Context for Health Care Policy	2
NRSG 880	Organizational Foundations for Leading Change	3
NRSG 885	Evaluation and Analysis for Healthcare Effectiveness	2
HP&M 832	Governance and Health Law	2
HP&M 833	Ethics	2
HP&M 837	Health Policy	3

Successful completion of 9 credits of elective courses in one **Focus Area.** The focus area (Clinical Leadership, Health Policy and Management, Public Health, Project Management, or Telehealth) and the corresponding courses are selected in consultation with the student's advisor based on the student's background and career goals.

• Clinical Leadership Focus (select 9 credit hours.) Choose from:

Code	Title	Hours	5
NRSG 748	Theories for Practice and Research	:	3
NRSG 755	Professionalism in Advanced Nursing Practic	e 3	3
NRSG 883	Complexity Science Approaches to Improve Organizational Effectiveness	;	3
NRSG 891	Human Resources and Workforce Developm	ient 3	3

• Health Policy and Management Focus (select 9 credit hours).

Choose from:

Code	Title	Hours
HP&M 810	The Health Care System	3
HP&M 822	Health Care Economics	3
HP&M 825	Financial Concepts in Healthcare Manageme	ent 3
HP&M 846	Health Information Technology Management	3
HP&M 850	Introduction to Operations	3
HP&M 854	Human Resources and Workforce Developm	ent 3

• Public Health Focus (select 9 credit hours). Choose from:

Code	Title	Hours
PRVM 800	Principles of Epidemiology	3
PRVM 815	Infectious Disease Epidemiology	3
PRVM 845	Health, Society, and Culture	3
PRVM 875	Management of Public Health Data	3
PRVM 877	Health Communication	3

• Project Management Focus (select 9 credit hours).

Code	Title	Hours
PMGT 816	Project Management Fundamentals I	3
PMGT 817	Project Management Fundamentals II	3
PMGT 818	Project Management Fundamentals III	3

• Telehealth Focus (select 9 credit hours).

Code	Title	Hours
IPHI 861	Introduction to Telehealth Policy and Practice	3
IPHI 862	Developing Telehealth Programs	3
IPHI 863	Applications of Telehealth Methods and Models	3

Typical Plan of Study for Part-Time Students

Year 1			
Fall	Hours Spring	Hours Summer	Hours
IPHI 851	3 NRSG 880	3 IPHI 850	2
NRSG 808	2 Focus Area	3	
	course		
	5	6	2
Year 2			
Fall	Hours Spring	Hours Summer	Hours
IPHI 853	3 IPHI 852	3 IPHI 854	3
Focus Area	3 NRSG 885	2	
course			
	6	5	3
Year 3			
Fall	Hours Spring	Hours Summer	Hours
IPHI 820	2 IPHI 856	2 IPHI 856	1
Focus Area	3	Oral	
course		Comprehensive	
		Examination	
	5	2	1

Total Hours 35

Dual Degree: Doctor of Pharmacy & Master of Science in Health Informatics

This dual degree program combines the Master of Science in Health Informatics (MSHI) with the Doctor of Pharmacy (PharmD) and is designed particularly for those students intending to pursue opportunities in pharmacy informatics. Students accepted into the dual MSHI/PharmD program concurrently enroll in both programs and can start MSHI courses as early as the spring of the P2 year. Providing that prerequisites are met, the HI practicum will satisfy 1 of 9 required advanced pharmacy practice experiences (APPEs). A Health Informatics comprehensive oral examination occurs during the last semester of enrollment in the MSHI program. Admission to this program is restricted to students currently in the KU PharmD program.

Degree Requirements

Informatics Core Courses (21 credits)

Code	Title	Hours
IPHI 850	Introduction to Health Informatics	2
IPHI 851	Transforming Health Care through Use of Information Systems and Technology	3
IPHI 852	Health Data Theory and Practice	3
IPHI 853	Abstraction and Modeling of Healthcare Information	3
IPHI 854	Knowledge Management in Health Care	3
IPHI 858	Health Informatics Practicum: Pharmacy	4
IPHI 957	Health Informatics, Human Factors, and Ergonomics as Applied to Patient Safety	3

Leadership Courses (9 credits)

Code	Title	Hours
IPHI 820	Program, Project, and Communication Planning	2
NRSG 808	The Social Context for Health Care Policy	2
NRSG 880	Organizational Foundations for Leading Change	3
NRSG 885	Evaluation and Analysis for Healthcare Effectiveness	2

Research Courses (2 credits)

Code	Title	Hours
PHPR 629	Research Design and Biostatistics	2

Focus Area (9 credit hours)

Code	Title	Hours
PHPR 613	Pharmacoeconomics and Health Outcomes	2
PHPR 614	Pharmacy Management	3
PHPR 621	Pharmacy Law	2
PHPR 624	Pharmacoepidemiology and Public Health	2

TECHNICAL STANDARDS FOR ADMISSION

Center for Health Informatics

The Master of Science in Health Informatics degree and Graduate Certificate signify that the holder is prepared for entry into the practice of applied health informatics. Therefore, it follows that graduates must have the knowledge and skills necessary to function in a broad range of situations. The following abilities and expectations must be met by all students with or without accommodations admitted to the program.

- Observation: Students must be able to observe: lectures, demonstrations, online written and recorded audio/visual material, online meetings, and practice situations. Observation necessitates the functional use of the senses of vision and hearing.
- Communication: Applicants also must be able to communicate effectively and efficiently in English with other students, faculty, staff and mentors/preceptors. Communication includes not only speech, but also listening, reading, and writing. Effective communication includes the ability to comprehend conversation, presentations, assigned readings, and the ability to present information verbally and in writing.
- Motor: A student must have sufficient motor function to attend classes, prepare assignments, use a computer keyboard, and make public presentations if required. Course requirements will also include field work in a variety of health organizations.
- 4. Intellectual, conceptual, integrative, quantitative, and problemsolving abilities: An applicant must be able to understand and learn factual information from readings and didactic presentations, gather information independently, analyze and synthesize learned material, and apply that information. In addition, an applicant must possess the ability to understand and work with measurements, carry out calculations and engage in reasoning, analysis and synthesis based on the calculations. An applicant must be able to draw on all these abilities to be an effective problem solver.
- 5. Behavioral and social attributes: Integrity, reliability, self-direction, motivation, and the ability to work with diverse groups are qualities necessary for effective preparation for and practice in this field. A student must have the emotional health required for: the full use

of their intellectual ability, the exercise of sound judgment, and the timely completion of all responsibilities attendant to the completion of academic responsibilities.

NOTE: Reasonable accommodations will be considered and may be made to qualified students who disclose a disability, so long as such accommodation does not significantly alter the essential requirements of the curriculum and the training program, or significantly affect the safety of patient care. Students who disclose that they have a disability are considered for the program if they are otherwise qualified. Qualified students with a disability who wish to request accommodations should provide the appropriate documentation of disability and submit a request for accommodation to the University's Office for Academic Accommodations.