

MS in Health Informatics and Bioinformatics with Emphasis in Health Informatics

Degree Requirements

The residential MS in Health Informatics curriculum requires 40 credit hours of course work, which include foundational coursework in health information technology. Residential MS in Health Informatics students have the option to complete a 12-week internship during the summer following their first year, although it is not required for the degree.* The BBME student advisor will work with HI students who wish to complete an internship to find an appropriate placement. For a list of recent internship placements, please see <https://medicine.missouri.edu/departments/biomedical-informatics-biostatistics-medical-epidemiology/graduate-degrees-programs/residential-health-informatics-program> (<https://medicine.missouri.edu/departments/biomedical-informatics-biostatistics-medical-epidemiology/graduate-degrees-programs/residential-health-informatics-program/>).

The MS in Health Informatics curriculum integrates learning across computer science and health informatics, health research and also develops students' research interests. Students must maintain a minimum 3.0 cumulative MU graduate grade point average to earn the Master's degree. Individuals with three or more years of professional experience are encouraged to apply for admission to the Executive MS in Health Informatics cohort (please see Executive plan of study information below).

Required Courses

BBME 7410	Introduction to the US Health Care System	3
BBME 7430	Introduction to Health Informatics	3
BBME 7440	Health Information Technology	3
BBME 8435	Information Security, Evaluation and Policy	3
BBME 8437	Data Warehousing and Data/Text Mining for Health Care	3
BBME 8441	Biomedical and Health Vocabularies and Ontologies	3
BBME 8443	Enterprise Information and Solutions Architecture for Strategic Healthcare Operations	3
BBME 8550	Health Data Analytics	3
BBME 8560	Data Design and Analysis I	3
BBME 8571	Decision Support in Health Care Systems for Biomedical Informatics	3
BBME 8610	Consumer Health Informatics	3
BBME 8870	Knowledge Representation in Biology and Medicine	3
BBME 8090	Thesis Research in Informatics	4

* If a student chooses to complete an internship, they must register for BBME 8689 Field Experience in Informatics and must abide by all internship program requirements.

Sample Plan of Study - Residential in Health Informatics

First Year			
Fall	CR	Spring	CR
BBME 7410		3 BBME 8441	3
BBME 7430		3 BBME 8550	3
BBME 7440		3 BBME 8560	3
BBME 8090		1 BBME 8090	1
			10
Second Year			
Fall	CR	Spring	CR
BBME 8437		3 BBME 8435	3
BBME 8443		3 BBME 8090	1
BBME 8571		3 BBME 8870	3
BBME 8090		1 BBME 8610	3
			10

Total Credits: 40

Sample Plan of Study - Executive in Health Informatics

Executive Students begin program in Spring semester.

First Year					
Fall	CR	Spring	CR	Summer	CR
Executive students begin Spring semester, and program runs on calendar year.		BBME 8550		3 BBME 7580	3
		BBME 8571		3 BBME 8560	3
			0	6	6
Second Year					
Fall	CR	Spring	CR	Summer	CR
BBME 7410	3	BBME 8441	3	BBME 8090	1
BBME 7430	3	BBME 8435	3		
		BBME 8090	1		
			6	7	1
Third Year					
Fall	CR				
BBME 8437	3				
BBME 8443	3				
BBME 8090	1				
			7		

Total Credits: 33

Thesis/Non-Thesis Requirement

Residential MS in Health Informatics students have the option to complete a formal Master's thesis to be submitted to the Graduate School. Students who choose not to complete a thesis must complete a substantial independent research project. All MS in Health Informatics

students must present their thesis or independent research during their oral comprehensive examination in their final semester.

Financial Aid

Further information about costs, financial aid, and external scholarship opportunities is available on the HMI Department's website at: <https://medicine.missouri.edu/departments/health-management-and-informatics/graduate-degrees-programs/costs-financial-aid> (<https://medicine.missouri.edu/departments/health-management-and-informatics/graduate-degrees-programs/costs-financial-aid/>).

Executive MS in Health Informatics Program

In addition to the residential (on-campus) mode, the MS in Health Informatics degree is offered in an alternative format for professionals who have significant experience in health informatics. HMI accepts an Executive MS in Health Informatics cohort to begin in January of each year. The executive MS in Health Informatics combines three on-campus weekend sessions per semester with independent study and online interaction in an innovative two-year course of study, and requires 33 credit hours of health informatics coursework. Students must complete a substantial independent research project, which they present during their oral comprehensive examination in their final semester. For additional information about the Executive MS in Health Informatics degree, please visit <https://medicine.missouri.edu/departments/health-management-and-informatics/graduate-degrees-programs/executive-health-informatics-program> (<https://medicine.missouri.edu/departments/health-management-and-informatics/graduate-degrees-programs/executive-health-informatics-program/>).

Informatics PhD Program

MU also offers a PhD in Informatics with emphasis in Health Informatics through the MU Informatics Institute (<https://muidsi.missouri.edu/>).

Admissions Requirements

Applicants are required to meet two sets of minimum qualifications for admission: the requirements of the MS in Health Informatics program (<https://medicine.missouri.edu/departments/biomedical-informatics-biostatistics-medical-epidemiology/graduate-degrees-programs/>) and the minimum requirements of the Graduate School (<https://gradschool.missouri.edu/admissions/eligibility-process/>). Because requirements vary, you *must* refer to a degree program's graduate admission page to learn about specific admission criteria, application deadlines, eligibility and application process. Before official admissions to the University of Missouri, your application materials will be reviewed by both the degree program to which you've applied and the Graduate School.

Admission Criteria

- Minimum GPA: 3.0
- Bachelor's degree from an accredited college or university
- International students whose native language is not English must submit test scores from TOEFL (Test of English as a Foreign Language) of 100 or better on the internet-based exam or IELTS (International English Language Testing System) of 7.0 or better, or Duolingo scores of 120 or better.

- Please refer to Mizzou's Language Proficiency Exemptions and Waivers (<https://gradschool.missouri.edu/admissions/eligibility-process/international-applicants/>)
- Only completed applications will be considered for fall admission. Applicants are selected for admission to the program based on their potential to successfully complete the program.
- Graduate School applications open August 1 for fall semester of the following year. Deadline for applications is February 1.

Required Application Materials

- Completed graduate school online application
- Unofficial transcripts
- Three letters of recommendation (submitted through the graduate school application)
- A personal statement in essay form that is at least two paragraphs long but no longer than one page. The statement should include your prior training and experience that would make you a strong candidate for the program; your career goals and how the program will contribute to your success; and specific topics or areas in biomedical informatics you would like to focus on.
- An updated resume or curriculum vitae.

Admissions Contact

<https://medicine.missouri.edu/departments/health-management-and-informatics> (<https://medicine.missouri.edu/departments/health-management-and-informatics/>)