Biomedical and Health Informatics

Discipline Coordinator
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Biomedical and Health Informatics faculty who are members of the doctoral faculty.

Biomedical and Health Informatics is a discipline in the Interdisciplinary Ph.D. (http://catalog.umkc.edu/colleges-schools/graduate-studies/interdisciplinary-phd-program) Program administered by the School of Graduate Studies.

Note: The discipline-specific requirements listed here are in addition to the requirements listed in Interdisciplinary Ph.D. Application Procedure and Minimum Criteria for Admission and Minimum Interdisciplinary Ph.D. Academic Regulations and Degree Requirements.

Note: The Biomedical and Health Informatics discipline is accepting applications for the co-discipline only.

Discipline Overview

Biomedical and Health Informatics is the “scientific field that deals with biomedical information, data, and knowledge – their storage, retrieval, and optimal use for problem solving and decision making. It accordingly touches on all basic and applied fields in biomedical science and is closely tied to modern information technologies, notably in the areas of computing and communication, i.e. medical computer science.” (Definition from Stanford University, Medical Informatics.) The National Center for Biotechnology Information defines Bioinformatics as the “field of science in which medicine, biology, computer science, and information technology merge to form a single discipline. The ultimate goal of the field is to enable the discovery of new biological insights as well as to create a global perspective from which unifying principles in biology and health can be discerned.”

Recommended Curriculum

While the following courses are suggested core components for the Biomedical and Health Informatics co-discipline, students may work with the Discipline Coordinator to create an individualized plan of study.

• MEDB 5510 Clinical Research Methodology or MEDB 5512 Clinical Trials
• MEDB 5511 Principles and Applications of Epidemiology or MEDB 5514 Human Genome Epidemiology
• MEDB 5521 Clinical Bioinformatics
• MEDB 5501 Biostatistics I & MEDB 5502 Biostatistics II

For the department's policy on academic progression, please contact the discipline coordinator (gerkovichm@umkc.edu).

Suggested Primary Discipline Areas

Mathematics (http://catalog.umkc.edu/colleges-schools/graduate-studies/mathematics)
Cell Biology and Biophysics (http://catalog.umkc.edu/colleges-schools/graduate-studies/cell-biology-biophysics)
Molecular Biology and Biochemistry (http://catalog.umkc.edu/colleges-schools/graduate-studies/molecular-biology-biochemistry)
Oral and Craniofacial Sciences (http://catalog.umkc.edu/colleges-schools/graduate-studies/oral-craniofacial-sciences)
Pharmaceutical Science (http://catalog.umkc.edu/colleges-schools/graduate-studies/pharmaceutical-sciences)
Pharmacology (http://catalog.umkc.edu/colleges-schools/graduate-studies/pharmacology)
Computer Science (http://catalog.umkc.edu/colleges-schools/graduate-studies/computer-science)

Admissions

Applicants must meet both the general and the discipline specific criteria for admission and be recommended for admission by the doctoral faculty review groups in at least two disciplines. Upon approval by the graduate dean, students are admitted to the School of Graduate Studies.

General Admissions Requirements

Please visit the UMKC IPhD Admissions page (http://catalog.umkc.edu/colleges-schools/graduate-studies/interdisciplinary-phd-application-procedure-minimum-criteria-for-admission) to learn about the general admissions requirements.

Discipline Specific Admissions Requirements

Please visit the UMKC School of Medicine IPhD Admissions page (http://med.umkc.edu/iphd/apply) to learn about the discipline specific requirements.