Health Informatics and Bioinformatics

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Contact Information

Biomedical Informatics, Biostatistics and Medical Epidemiology
Graduate Program – Health Informatics
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https://medicine.missouri.edu/departments/biomedical-informatics-biostatistics-medical-epidemiology (https://medicine.missouri.edu/departments/biomedical-informatics-biostatistics-medical-epidemiology/)

Department of Biomedical Informatics, Biostatistics and Medical Epidemiology (BBME)

Graduate level academic programs at MU in the area of Health Informatics and Bioinformatics are offered through the Department of Biomedical Informatics, Biostatistics and Medical Epidemiology (BBME) in the School of Medicine. The BBME Department develops, translates, and disseminates knowledge, innovations, and evidence-based solutions to improve informatics performance in complex health systems. BBME advances the health of Missouri's communities, the nation, and international partners by:

- Creating a culture of collaborative relationships in research, education, and service to generate innovative ideas and solutions;
- Providing professional health informatics education and fostering lifelong learning;
- Delivering technical assistance and consultation by partnering with health, human service, and policy-making organizations; and
- Developing innovative commercial products and services for health and education related application

Degrees & Certificates Offered

The BBME Department offers the following degrees and graduate certificate programs:

- Master of Science in Health Informatics and Bioinformatics (executive and residential cohort)
- Graduate Certificate in Health Informatics (distance and on-campus)
- Graduate Certificate in Health Ethics (distance and on-campus)
- Graduate Certificate in Healthcare Project Management (distance - 100% online)

Faculty

Professor A. Dwivedi, R. Foraker** J. McClay**, M. Popescu**, E. J. Simoes**, P. Tonellato*
Associate Professor F.Alahdab**
Assistant Professor N. Chen*, C. Schmaltz*, X. Song**
Adjunct Associate Professor J. Jackson-Thompson**, L. Sheets*

* Graduate Faculty Member - membership is required to teach graduate-level courses, chair master's thesis committees, and serve on doctoral examination and dissertation committees.
** Doctoral Faculty Member - membership is required to chair doctoral examination or dissertation committees. Graduate faculty membership is a prerequisite for Doctoral faculty membership.

Undergraduate

While MU does not offer undergraduate degrees specifically in Health Informatics, the University does offer baccalaureate opportunities in a number of related areas in the other Schools and Colleges that make up the University. The catalog provides a complete list of these degree options (https://catalog.missouri.edu/degreesanddegreeprograms/).

BBME(Department of Biomedical Informatics, Biostatistics, and Medical Epidemiology) offers some health informatics and bioinformatics courses that are cross-leveled: BBME 4430/BBME 7430 Introduction to Health Informatics,BBME 4420/BBME 7420 Fundamentals of Bioinformatics, and BBME 4440/BBME 7440 Health Information Technology. Undergraduate students may enroll in the 4000-level sections of these classes for Undergraduate credit. Undergraduate students who are eligible for dual enrollment may, with permission, take courses through BBME for Graduate credit.

Graduate

- MS in Health Informatics and Bioinformatics (https://catalog.missouri.edu/schoolofmedicine/healthinformaticsbioinformatics/ms-health-informatics-bioinformatics/)
  - with emphasis in Bioinformatics (https://catalog.missouri.edu/schoolofmedicine/healthinformaticsbioinformatics/ms-health-informatics-bioinformatics-emphasis-bioinformatics/)
  - with emphasis in Health Informatics (https://catalog.missouri.edu/schoolofmedicine/healthinformaticsbioinformatics/ms-health-informatics-bioinformatics-emphasis-health-informatics/)

MU also offers a PhD in Informatics with emphasis in Health Informatics through the MU Institute for Data Science and Informatics (https://muidsi.missouri.edu/).

About the Master of Science in Health Informatics and Bioinformatics

The Master of Science in Health Informatics and Bioinformatics program prepares professionals to meet critical and complex challenges in applying information technology within the health industry. It provides recognized national and global leadership in health informatics education.

The residential master's degree prepares students for careers in developing and evaluating clinical information systems, data and knowledge management, decision support, and doctoral study in health informatics. The executive master's degree advances the careers of physicians, managers, nurses, information system designers, consultants, entrepreneurs, and others committed to the application of information technology for improving the quality, safety, and efficiency of health services.

The program admits diverse cohorts of students from Missouri, other states, and other nations. During the admissions process, the program seeks learners with strong academic records, maturity, motivation, leadership capabilities, and career potential. Primary post-graduation

placements include doctoral programs, health systems, hospitals, academic medical centers, physician group practices, outpatient facilities, information technology companies, consulting firms, government agencies, insurance entities, and other points of health services delivery.

Whereas the residential master's degree format is a traditional on-campus residential program, the executive master's degree is offered in a hybrid model featuring both on-campus and distance learning. In both formats, emphasis is on fostering an individualized and collaborative culture of learning, mentoring, and professional development among students, faculty, staff, alumni, and other practitioners. The intent is to prepare students to enable transformational leadership and improve patient care quality, safety, value, and overall level of population health.