HEALTH DATA ANALYTICS (MS)

Master of Science in Health Data Analytics
Unit: School of Public Health and Information Sciences (https://louisville.edu/sphis/) (GH)
Department: Health Management and Systems Sciences (https://louisville.edu/sphis/departments/health-management-systems-sciences/)
Academic Plan Code: HEDAMS_0

Program Information
This program is completed entirely online (https://louisville.edu/online/programs/masters/master-of-science-in-health-data-analytics/).

The Master of Science in Health Data Analytics program will educate and train public health graduate students in data analytics using the most recently developed techniques for Big Data, data mining, and algorithmic analysis.

Competencies
The MS in Health Data Analytics Program focuses on four key competencies:

a. Public health knowledge
b. Data warehouse development for health data analytics
c. Health data analytics
d. Translation of data analytics into actionable knowledge

Curriculum
The curriculum has four main components:

a. Public health foundations
b. Principles of data warehouse construction (i.e., creating Big Data from little data)
c. Advanced analytics (i.e., Big Data analytics, data mining)
d. Application of program competencies towards solving real-world problems in the MSHDA Capstone project.

Faculty Advisor
On matriculation, each student is assigned a faculty advisor and is requested to meet at least twice each semester with his or her advisor. The faculty advisor works with the student to develop a program of study and serves as academic mentor and counselor on career and employment opportunities, professional development, and opportunities beyond graduate school.

Admission Requirements
The MS program is available to students who have completed an undergraduate degree in biostatistics, statistics, mathematics, computer science or a related discipline and have competency in college-level calculus, statistics, regression analysis, as evidenced by transcripts from postsecondary institutions attended by the applicant.

This program is available to both part-time and full-time students; however, the part-time student must be cognizant that courses are offered on an alternating basis, usually every two years. Part-time students must pursue the recommended course sequence as courses are available.

The following are additional requirements for admission:

- Recommended minimum GPA of 3.0 on a 4.0 scale
- Graduate application (http://louisville.edu/graduate/futurestudents/apply-materials/application/) submitted to the Graduate School
- Non-refundable application fee
- At least two letters of recommendation written within past twelve months, submitted via the Graduate School (gradadm@louisville.edu)
- Students are asked to submit a current curriculum vitae (CV)
- All postsecondary transcripts (requires foreign credential evaluation if not from accredited U.S. institution)
- Statement of goals (i.e., general research interests)
- Admission interviews by the HMSS Health Leadership Committee are required and are in addition to your application for admission. An interview provides the HMSS Health Leadership Committee an additional source of information and perspective about your potential fit for the University of Louisville.
- If candidate’s primary language is not English, one of the following:
  - Test of English as a Foreign Language (TOEFL) exam with a minimum score of 79
  - IELTS score of 6.5 or higher
  - Duolingo English score of 105 or higher
  - Degree from an accredited U.S. institution (requires provisional admission with evaluation of English language competency)

Application Deadlines
Fall semester – Applications are accepted on a rolling basis. Applications preferred by July 1st.

- Domestic student are encouraged to apply no later than 30 days prior to the start of the fall semester.
- International students encouraged to apply no later than 120 days prior to the start of the fall semester.

Spring semester – Applications are accepted on a rolling basis. Applications preferred by November 1st.

- Domestic student are encouraged to apply no later than 30 days prior to the start of the fall semester.
- International students encouraged to apply no later than 120 days prior to the start of the fall semester.

Summer semester – Applications are not accepted.

For information on the application process, please contact:
Program Coordinator Senior
Department of Health Management and Systems Sciences
School of Public Health and Information Sciences
University of Louisville
485 E. Gray Street
Louisville, KY 40292
P. 502-852-2797
Email: spishms@louisville.edu
Program of Study

The MS in Health Data Analytics is designed to train students in fundamentals of public health, data warehouse/database creation and management, compliance with Federal codes and regulations regarding PHI, and advanced analytics skills. As a major component of this degree, students are required to complete a discovery-based project that is a thorough analysis of a selected complex data set to reveal patterns and relationships. The capstone project requires the rigorous application of multivariate techniques such as regression model building and other analyses for single and multiple groups. Students must submit a written report of their findings and write a detailed synthesis and discussion on the choice of the methodologies used in the analyses, and the meaning of the analyses.

Program Requirements

There are 33 total credit hours in this curriculum, broken down as follows:

- 27 credit hours of required coursework
- Three (3) credit hours of capstone project
- Three (3) credit hours of project management (practicum/internship)

To graduate, students must successfully complete the 33 credit hour curriculum, including the Capstone course and project, and have an overall 3.0 GPA in program coursework. All courses within the curriculum are required and there are no electives.

Academic Standing

To maintain good academic standing in the MS in Health Data Analytics program, students must maintain a cumulative GPA of 3.0 or higher for all coursework in the program. A student must be in good academic standing in order to receive the degree.

Any MS in Health Data Analytics student with a program cumulative GPA below 3.0 will be placed in probationary status. Any student who remains in probationary status for two consecutive terms may be considered for dismissal from the program.

Coursework

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