Doctor of Philosophy in Biostatistics

IN-PERSON ONLY

Minimum Admissions Requirements

1. Online application: gograd.ku.edu/apply (Applicants will need to select "Medical Center Application" when prompted.)
2. Official transcript for all degree-granting institutions emailed to: stats_education@kumc.edu
3. Contact information for three recommenders.
4. Cumulative undergraduate and master's degree GPA of 3.0 or better in statistics, biostatistics, mathematics or applied mathematics. International transcripts require a NACES.org member evaluation.
5. B average or higher in Calculus I - III courses (or equivalent), and at least one of the following: Linear Algebra, Differential Equations, or Numerical Analysis.
6. Completion of any computer programming language course or demonstration of mastery via credentials or work experience
7. English Proficiency Test scores unless exempt or a Native English Speaker
8. Graduate Record Examination (GRE) scores from Educational Testing Service (ETS)

Application deadlines: Fall Admission Only - Feb. 1

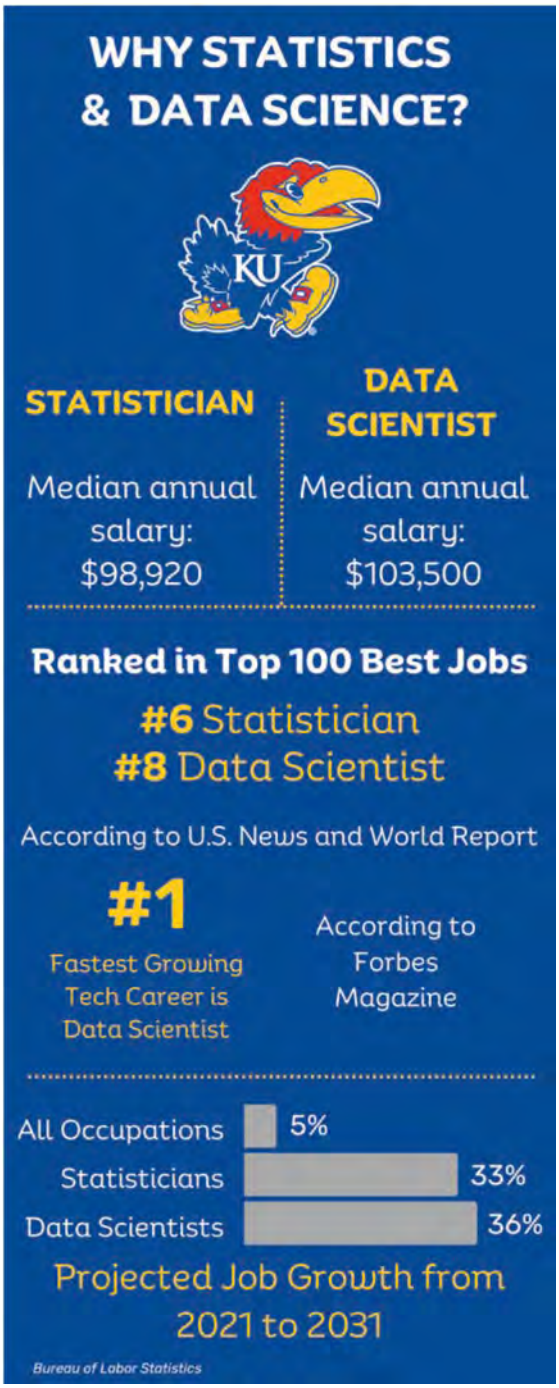
An applicant meeting the minimum requirements for admission is referred to the Admissions Committee for approval or disapproval. Approval for admission is good for up to 12 months from the approved date for admission.

About

There is ever-increasing demand for biostatisticians to take leadership roles in careers as researchers and educators in academia, government, and industry. Our faculty members are active researchers collaborating and consulting in research projects and initiatives at the Medical Center, in addition to pursuing their own research agendas and participating in curricular instruction. Expertise in the department includes linear, nonlinear, and longitudinal modeling; clinical trial and experimental design; survival analysis; categorical data analysis; robust statistics; psychometric methods; Bayesian methodology; informatics; data science and statistical genomics.

The Ph.D. program in Biostatistics produces biostatisticians who can develop biostatistical methodology that can be used to solve problems in public health and the biomedical sciences. In addition, graduates are prepared to apply biostatistical and epidemiology methodology for the design and analysis of public health and biomedical research investigations. Finally, graduates are well suited to function as collaborators or team leaders on research projects in the biomedical and public health sciences.

Upon completion of the Ph.D. in Biostatistics Program, graduates will have: a broad understanding of current statistical methods and practices in the health sciences; a solid theoretical training necessary for the development and study of new statistical methods; the ability to assume all responsibilities of a statistician in collaborative health science research; and experience in the design, data management, analysis, and interpretation of a variety of experimental and observational studies.



KU
DEPARTMENT OF BIOSTATISTICS & DATA SCIENCE
The University of Kansas Medical Center

https://biostatistics.kumc.edu

CURRICULUM

The typical PhD in Biostatistics degree program plan consists of 63 credit hours including collaborative research, graduate examinations, and the successful completion of a doctoral dissertation. Dissertation research culminates in a final dissertation examination consisting of an oral presentation by the candidate and an examination by the faculty. The program is tailored to the student and takes into account relevant prior graduate coursework. Therefore, the time to complete the program will vary.

REQUIRED COURSES (42 CREDIT HOURS)

BIOS 805: Professionalism, Ethics, and Leadership in the Statistical Sciences
BIOS 820: SAS Programming I
BIOS 825: Nonparametric Methods
BIOS 830: Experimental Design
BIOS 835: Categorical Data Analysis
BIOS 840: Linear Regression
BIOS 845: Survival Analysis
BIOS 871: Mathematical Statistics
BIOS 872: Mathematical Statistics II
BIOS 898: Collaborative Research Experience
BIOS 900: Linear Models
BIOS 902: Bayesian Statistics
BIOS 905: Theory of Statistical Inference

ELECTIVE COURSES (12 CREDIT HOURS)

BIOS 806: Special Topics in Biostatistics
BIOS 810: Clinical Trials
BIOS 815: Introduction to Bioinformatics
BIOS 821: SAS Programming II
BIOS 823: Introduction to Programming and Applied Statistics in R
BIOS 833: Measurement for Statisticians
BIOS 850: Multivariate Statistics
BIOS 855: Statistical Methods in Genomics Research
BIOS 860: Clinical Trials Design and Analysis
BIOS 880: Data Mining and Analytics
BIOS 906: Advanced Special Topics in Biostatistics
BIOS 908: Advanced Clinical Trials
BIOS 910: Generalized Linear Models
BIOS 911: Nonlinear Models
BIOS 915: Longitudinal Data Analysis
BIOS 920: Latent Variable Analysis

Students must also pass the Qualifying, Written, and Oral Comprehensive Examinations; complete a minimum of 9 credit hours of BIOS 999: Doctoral Dissertation; and successfully defend their dissertation.

Tuition and Fees:
https://www.kumc.edu/tuition-and-fees

Financial Assistance:
https://www.kumc.edu/financialaid

Contact

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