

Bioinformatics and Biostatistics

The Department of Bioinformatics and Biostatistics is on the cutting edge of research in the health sciences. The faculty and staff are committed to preparing graduate students to meet the demand for well-trained biostatisticians, statistical bioinformaticists, and decision scientists. Our graduates have obtained well-paid positions in the pharmaceutical industry, academia, health sciences, government, and the private sector. Students enjoy classes with a low student-faculty ratio, where they receive training and education from distinguished faculty. Lastly, students are given the opportunity to participate in quantitative research in public health, medicine, dentistry, and nursing.

Current graduate degrees offered by the department include a PhD in Biostatistics with an optional emphasis on Bioinformatics or Decision Science and a Master of Science with a concentration in Biostatistics or Decision Science. The department also advises students who select the biostatistics concentration in the school's Master of Public Health program.



Bioinformatics is an emerging field that combines elements of molecular biology (e.g., genomics, proteomics, metabolomics), computer science, biostatistics, mathematics, and other fields. The department's bioinformatics emphasis includes teaching and development of biostatistical methods for bioinformatics problems, and collaboration with applied research groups that utilize bioinformatics methods.

Biostatistics is an exciting and challenging discipline in which statistical theory and methods are applied to problems in biology, medicine, and health sciences. Students in biostatistics study advanced statistical techniques and methodology, experimental design, data analysis, clinical trials, and many other areas of statistics within the health sciences. Students also use the most up-to-date software programs in biostatistics, such as SAS and S-PLUS/R. Interested students should have strong quantitative skills and a strong interest in science.

Decision science is an advancing field that allows researchers to simultaneously balance many competing concerns in healthcare (e.g., lowering costs, increasing quality). Students are trained in the quantitative skills required to evaluate the utility of medical, public health, and health policy interventions, such as examining the cost-effectiveness of emerging health interventions. Emphasis is placed on methods that aid clinicians and healthcare administrators in making informed decisions that balance such things as quality of life and duration of life.

Department of Bioinformatics
and Biostatistics
School of Public Health &
Information Sciences
University of Louisville
Louisville, KY 40292
Phone: (502) 852-3299
Fax: (502) 852-3294
<http://louisville.edu/sphis/bb>

U OF SCHOOL OF PUBLIC HEALTH
& INFORMATION SCIENCES