

OUR RESEARCH

- Biomedical big data
- Classification and discrimination of patients using single or panel biomarkers
- Cancer Biomarker Discovery
- Clinical trials
- Cluster analysis
- Computational drug screening
- Computational structural biology
- Dimensionality reduction approaches
- Environmental exposure research
- Geostatistics
- Hierarchical Bayesian models and inference
- Hierarchical models
- Longitudinal statistical models
- Meta-analysis
- Modeling the dynamics of infectious diseases
- Multiple testing
- Multivariate statistical analysis
- Next Generation Sequencing (NGS) data analysis
- Nonparametric longitudinal data
- Predictive models using machine learning methods
- Statistical computing
- Statistical genetics
- Statistical methodologies in bioinformatics
- Survival analysis
- Systems biology



College of Medicine
Department of Biostatistics,
Health Informatics, & Data Science
University of Cincinnati
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Division of

Biostatistics and Bioinformatics

University of Cincinnati
College of Medicine



We invite you to join the field of Biostatistics and Bioinformatics

Bioinformatics is a data science field concerned with applications of statistical reasoning in biomedical and public health research.

Biostatisticians develop statistical methodologies that are tailored to address specific biomedical data analysis problems.

Bioinformatics is an interdisciplinary field that develops methods and computational tools for understanding high-dimensional biomedical data. There are many overlaps between Biostatistics and Bioinformatics in terms of methodologies utilized and domains of application in biomedical research.

Degrees Offered

- **Master of Science Biostatistics (MS)**
- **Master of Public Health (MPH) -concentration in biostatistics**
- **Doctor of Philosophy Biostatistics (PhD)**
- **Doctor of Philosophy Biostatistics (PhD) - Big Data track**

Financial Support

The Doctoral Programs in Biostatistics and Big Data offer qualified applicants tuition and stipend coverage through graduate assistantships.

Program Descriptions

Master of Science Biostatistics

The Master of Science in Biostatistics degree is designed to provide graduate level training in the application and theory of biostatistics. The target audiences for this program include individuals who desire careers as collaborative biostatisticians in the basic, clinical, translational or population sciences. The MS program will require 30hrs of course work and a thesis.

Master of Public Health (MPH): concentration in biostatistics

The biostatistics concentration of the MPH program requires 18hrs of core coursework in biostatistics and aims to prepares students to take positions as statistical consultants or data analysts in health related organizations. The MPH degree will require 42hrs of coursework including a practicum and capstone experience.

Doctor of Philosophy Biostatistics

The Doctor of Philosophy (PhD) in Biostatistics prepares students for advanced study and research in biostatistics and bioinformatics. The program targets students with strong skills and training in mathematics and statistics who are interested in applications in biomedical research, public health and health care. The PhD program will require 90hrs of course work, a qualifying exam, and a dissertation.

Doctor of Philosophy Biostatistics - Big Data track

The Big Data Biostatistics PhD program aims to train the next generation of data scientists, addressing regional and national demands for experts in statistical methods for BDB analysis. The Big Data track provides rigorous foundations in probability theory, statistics and computational sciences, combined with a broad knowledge of applications to biomedical research. The PhD Big Data track program will require 90hrs of course work, a qualifying exam, and a dissertation.

More about us

Housed in UC's **Department of Biostatistics, Health Informatics and Data Sciences** with collaborations throughout the College of Medicine and Cincinnati Children's Hospital Medical Center, the Division of Biostatistics and Bioinformatics offers exciting training and research opportunities in biomedical data sciences. Training programs in the division combine rigorous statistical and computational education rooted in the probability theory and computer science with the exposure to a broad range of biomedical research applications.

Admission Criteria

Program admission is based upon review of the complete set of credentials submitted by each candidate:

- A baccalaureate degree from an accredited college or university
- Official GRE scores
- International students must take the TOEFL or IELTS exam
- Personal Statement
- Official Transcripts
- Three letters of recommendation

More Information?

<https://med.uc.edu/depart/bhd>

Contact us at:

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