

UNIVERSITY *of* WASHINGTON

Master of Science in Biostatistics

New 18-Month Capstone Program



The streamlined Master of Science in Biostatistics offers advanced training in an efficient 18-month format. Build expertise and in-demand skills while learning directly from internationally recognized faculty in the top-ranked UW Department of Biostatistics.

Curriculum: Theory Meets Practice

Designed to educate a new generation of biostatisticians, the innovative core curriculum provides a rigorous and applications-driven foundation in **statistical theory and methods** (the science of biostatistics) and **biomedical data analysis** (the practice of applying biostatistics).

Choice of Specializations

- **Data Science:** Learn the statistical and computing tools that are unlocking the puzzles of big data and its potential to dramatically improve public health.
- **Statistical Genetics:** Study the mathematical and biological science that underpins our understanding of the genetic basis of diseases and leads to cutting-edge advances in precision medicine.
- **Modeling & Methods:** Master advanced mathematical and statistical techniques that allow us to analyze complex data structures and simulate realistic biological systems, all with the goal of making the next big leap in improving human health.

Career-Advancing Capstone

The program culminates in a capstone project that gives you the opportunity to showcase key skills to future employers in a marketable portfolio.

Be part of an energetic community of students, faculty and scientists at the cutting-edge of impactful research. Visit our website for details.

APPLICATION DEADLINE

January 15

LOCATION

UW Seattle campus

DURATION

18 months (5 quarters)

CREDITS

50

MS in Biostatistics: Courses

Take core curriculum courses during your first two quarters, and then choose a specialization pathway by spring quarter. Your choice of specialization determines the additional courses required to complete your degree.

Core Curriculum Courses

- Biostatistics I (BIOST 514)
- Biostatistics II (BIOST 515)
- Data Analysis & Reporting (BIOST 579)
- Statistical Inference for Biometry I (BIOST 522)
- Statistical Inference for Biometry II (BIOST 523)
- Computational Skills for Biostatistics (BIOST 561)
- Foundations of Public Health for Biostatistics (BIOST 504)
- Writing and Presentation Skills for Biostatistics (course number pending)
- Biostatistics Capstone I – Project Planning (BIOST 596)
- Biostatistics Capstone II – Project Implementation (BIOST 597)

Data Science Pathway

- Categorical Data Analysis in Epidemiology (BIOST 536)
- Survival Data Analysis in Epidemiology (BIOST 537)
- Introduction to Biomedical Data Science (BIOST 544)
- Machine Learning for Biomedical & Public Health Big Data (BIOST 546)
- A choice of two of the following courses:
 - Design of Medical Studies (BIOST 524)
 - Nonparametric Regression & Classification (BIOST 527)
 - Longitudinal & Multilevel Data Analysis (BIOST 540)

Statistical Genetics Pathway

- Mendelian Genetics (BIOST 550)
- Quantitative Genetics (BIOST 551)
- Machine Learning for Biomedical & Public Health Big Data (BIOST 546)
- Advanced Regression Methods I (BIOST 570)
- Computational Molecular Biology (GENOME 540)
- Statistical Genetics Seminar (BIOST 581)
- A choice of one of the following courses:
 - Nonparametric Regression & Classification (BIOST 527)
 - Longitudinal & Multilevel Data Analysis (BIOST 540)

Modeling & Methods Pathway

- Nonparametric Regression & Classification (BIOST 527)
- Theory of Linear Models (BIOST 533)
- Advanced Regression Methods I (BIOST 570)
- Advanced Regression Methods II (BIOST 571)
- Stochastic Modeling I (STAT 516)
- Stochastic Modeling II (STAT 517)
- Seminar in Biostatistics (BIOST 580)

COURSE CREDITS

Core curriculum: 24
Pathway curriculum: 20
Capstone: 6

COURSE LOAD

Full-time: 10 credits per quarter (summer optional)

GRADES

Minimum 3.0 GPA in core and pathway courses

HOW TO APPLY

Visit our website for details on admission and application requirements.