

UNIVERSITY *of* WASHINGTON

Master of Science in Biostatistics

New 18-Month Capstone Program
Launches Autumn 2018



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.

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



APPLICATION DEADLINE

December 1

Applications received after this date will be considered on a space-available basis

PROGRAM START

Autumn 2018

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)
- Computational Skills for Biostatistics I (BIOST 561)
- Computational Skills for Biostatistics II (BIOST 562)
- Data Analysis & Reporting (BIOST 579)
- Statistical Inference for Biometry I and II (course numbers pending)
- Public Health Concepts I, II, and III (course numbers pending)
- Capstone Project I and II (course numbers pending)

Data Science Pathway

This pathway includes the option to complete quarters four and five online.

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

Statistical Genetics Pathway

- Advanced Regression Methods for Independent Data (BIOST 570)
- Introduction to Computational Molecular Biology: Genome & Protein Sequence Analysis (GENOME 540)
- Longitudinal & Multilevel Data Analysis (BIOST 540)
- Nonparametric Regression & Classification (BIOST 527)
- Statistical Genetics I: Mendelian Traits (BIOST 550)
- Statistical Genetics II: Quantitative Traits (BIOST 551)
- Statistical Genetics III: Design & Analysis (BIOST 552)
- Statistical Genetics Seminar (BIOST 581)

Modeling & Methods Pathway

- Advanced Regression Methods for Independent Data (BIOST 570)
- Advanced Regression Methods for Dependent Data (BIOST 571)
- Measure Theory (STAT 559)
- Nonparametric Regression & Classification (BIOST 527)
- Seminar in Biostatistics (BIOST 580)
- Stochastic Modeling of Scientific Data (STAT 516)
- Stochastic Modeling of Scientific Data (STAT 517)

COURSE CREDITS

Core curriculum: 24
Pathway curriculum: 20
Capstone: 6

COURSE LOAD

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

GRADES

Minimum 3.0 grade in core and pathway courses

EXAM REQUIREMENT

Students must pass the First Year Statistical Theory exam at the end of the third quarter.

HOW TO APPLY

Visit our website for details on admission and application requirements.