

BIostatistics MINOR

The minor in Biostatistics is designed to familiarize students with the statistical tools necessary to analyze health science data. By taking public health courses focused on the fundamentals of statistical methodologies and programming techniques, students will gain skills that enable them to be involved in the design and analysis of quantitative studies as part of their future professional career or graduate study in an applied field. There are 6 required credits for Masters students. Doctoral students will select electives in consultation with advisor and Director of Graduate Studies to complete the 12-13 credit minimum. Only one course may be taken S/N; all other courses must be taken A - F. Many of these courses require two semesters of biostatistics (e.g. PubH 6450 - 6451) and some require more. Please check the course prerequisites before registering. Graduate credits can be applied toward either the major or the minor/other requirement, but not both.

REQUIRED COURSES - MASTERS

SELECT MINIMUM 6 CREDITS

- PubH 7415** Introduction to Clinical Trials (3 cr) **or**
PubH 7420 Clinical Trials: Design, Implementation, & Analysis (3 cr)
PubH 7430 Statistical Methods for Correlated Data (3 cr)
PubH 7440 Introduction to Bayesian Analysis (3 cr)
PubH 7445 Statistics for Human Genetics & Molecular Biology (3 cr)
PubH 7450 Survival Analysis (3 cr)
PubH 7470 Study Designs in Biomedical Research (3 cr)
PubH 7475 Statistical Learning & Data Mining (3 cr)
PubH 7485 Methods for Causal Inference (3 cr)

REQUIRED COURSES - DOCTORAL

FOR STATISTICS STUDENTS

12 CREDITS TOTAL

- PubH 7420** Clinical Trials: Design, Implementation, & Analysis (3 cr)
PubH 7450 Survival Analysis (3 cr)

ELECTIVES

FOR STATISTICS STUDENTS

SELECT MINIMUM 6 CREDITS

- PubH 8422** Modern Non-Parametrics (3 cr)
PubH 8442 Bayesian Decision Theory & Data Analysis (3 cr)
PubH 8452 Advanced Longitudinal Data Analysis (3 cr)
PubH 8462 Advanced Survival Analysis (3 cr)
PubH 8472 Spatial Biostatistics (3 cr)
PubH 8475 Statistical Learning & Data Mining (3 cr)
PubH 8482 Sequential & Adaptive Methods for Clin Trials (3 cr)
PubH 8485 Methods for Causal Inference (3 cr)

REQUIRED COURSES - DOCTORAL

FOR NON-STATISTICS STUDENTS

13 CREDITS TOTAL

Students must take one of the following two-course sequences:

- PubH 7401** Fundamentals of Biostatistical Inference (4 cr) **and**
PubH 7402 Biostatistics Modeling & Methods (4 cr)
or
PubH 7405 Biostatistical Inference I (4 cr) **and**
PubH 7406 Biostatistical Inference II (3 cr)

ELECTIVES

FOR NON-STATISTICS STUDENTS

MINIMUM 6 CREDITS FROM THE FOLLOWING LIST:

- PubH 7415** Introduction to Clinical Trials (3 cr) **or**
PubH 7420 Clinical Trials: Design, Implementation, & Analysis (3 cr)
PubH 7430 Statistical Methods for Correlated Data (3 cr)
PubH 7440 Introduction to Bayesian Analysis (3 cr)
PubH 7445 Statistics for Human Genetics & Molecular Biology (3 cr)
PubH 7450 Survival Analysis (3 cr)
PubH 7470 Study Designs in Biomedical Research (3 cr)
PubH 7475 Statistical Learning & Data Mining (3 cr)
PubH 7485 Methods for Causal Inference (3 cr)

PROGRAM COORDINATOR

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