BIOSTATISTICS MS

The Biostatistics (BIO) master’s degree programs teach and develop statistical skills to put numbers into context as part of public health research for solving human health-related problems. With an MS in biostatistics, students will have the skills to collaborate on the design of biomedical studies, analyze data, and communicate the results for researchers.

MS students must complete a minimum of 36 credits. To complete program requirements, students will choose electives from the list below, in consultation with their academic advisor.

YEAR ONE
FALL SEMESTER
PubH 6250 Foundations of Public Health (2 cr)
PubH 7405 Biostatistical Inference I (4 cr)
STAT 5101 Theory of Statistics I (4 cr) or
STAT 8101 Theory of Statistics I (3 cr)

SPRING SEMESTER
PubH 7406 Biostatistical Inference II (3 cr)
PubH 7450 Survival Analysis (3 cr)
STAT 5102 Theory of Statistics II (4 cr) or
STAT 8102 Theory of Statistics II (3 cr)

MAY (AFTER FINALS)
MS Written Examination

YEAR TWO
FALL OR SPRING SEMESTER
PubH 7465 Biostatistical Consulting (2 cr)

FALL SEMESTER
PubH 7430 Methods for Correlated Data (3 cr)
Biostatistics electives

SPRING SEMESTER
PubH 7420 Clinical Trials (3 cr)
PubH 7494 Integrative Learning Experience (1 cr)
Biostatistics elective

ELECTIVES
MINIMUM 9 CREDITS TOTAL

COMPUTING AND MACHINE LEARNING (3 CR)
Students must select at least 3 credits from the following courses.
PubH 6420 Introduction SAS Programming (1 cr)
PubH 7460 Advanced Statistical Computing (3 cr)
PubH 7461 Exploring & Visualizing Data in R (2 cr)
PubH 7462 Advanced Programming & Data Analysis in R (2 cr)
PubH 7475 Statistical Learning & Data Mining (3 cr)

ADDITIONAL ELECTIVES (6 CR)
Students must select at least 6 credits from the following courses.
PubH 7440 Introduction to Bayesian Analysis (3 cr)
PubH 7445 Statistics in Genetics & Molecular Biology (3 cr)
PubH 7470 Statistics for Translational & Clinical Research (3 cr)
PubH 7485 Methods for Causal Inference (3 cr)
PubH 8422 Modern Non-parametrics (3 cr)
PubH 8472 Spatial Biostatistics (3 cr)