

# BIostatISTICS, MASTER OF SCIENCE (M.S.)

## Summary of MS in Biostatistics Program Course Requirements

- Prerequisites/Admission requirement (preferred): Calculus (preferably 3 semesters including multivariable), Linear algebra
- All students are strongly encouraged to attend the biweekly seminar every semester.
- The total credits for MS in Biostatistics will be 43 credits (25 credits of core courses + 12 credits of electives + 6 thesis credits).

Course	Title	Credits
<b>Core Courses</b>		
EPIB650	Biostatistics I	3
EPIB651	Applied Regression Analysis	3
EPIB652	Categorical Data Analysis	3
EPIB653	Applied Survival Data Analysis	3
EPIB655	Longitudinal Data Analysis	3
EPIB667	(Applied Machine Learning with Python)	3
EPIB697	Public Health Data Management	3
EPIB610	Foundations of Epidemiology	3
SPHL601	Core Concepts in Public Health	1
<b>Elective Courses</b> <sup>1</sup>		<b>12</b>
EPIB611	Intermediate Epidemiology	
EPIB612	Epidemiologic Study Design	
EPIB633	Health Survey Design and Analysis	
EPIB635	Applied Multilevel Modeling in Health Research	
EPIB654		
EPIB656	Applied Bayesian Data Analysis	
EPIB657		
EPIB660	Analysis of National Health Survey Data	
EPIB661	Applied Multivariate Data Analysis	
EPIB664	Missing Data Analysis	
EPIB680	(Linear Model)	
EPIB681	(Causal Inference)	
EPIB682	(Statistical Learning for Health Data Analysis)	
EPIB683	(High-throughput Data Analysis)	
EPIB684	Epidemiologic Research Using Healthcare Databases (Electronic Health Record Data Analysis)	
EPIB695	Introduction to R for Health Data Analysis	
<b>Thesis Credits</b> <sup>2</sup>		<b>6</b>
EPIB799	Master's Thesis Research	
<b>Total Credits</b>		<b>43</b>

<sup>1</sup> With advisement, students will be able to choose elective courses both within and outside of EPIB (MATH, JPSM, CMSC, UMSOM).

<sup>2</sup> For more information, see the Graduate School policies on thesis requirements: <https://academiccatalog.umd.edu/graduate/policies/masters-degrees-policies/#masters-thesis-exam> and <https://academiccatalog.umd.edu/graduate/policies/masters-degrees-policies/#procedures-for-the-oral-examination>.