

Yale School of Public Health
Master of Science in Biostatistics
Curriculum (2020-2021 Matriculation)

The M.S. degree requires a total of 15 course units. The M.S. in Biostatistics requires the student to complete or acquire an exemption from the following courses. Full time students must carry a minimum of 4 course units each semester. If a course is waived, a substitute course must be identified.

Course	Title	Units	Term Offered	Term Taken	Notes
MS Required Courses (10 course units)					
BIS 525	Seminar in Biostatistics and Journal Club	0	Fall	1 st year	
BIS 526	Seminar in Biostatistics and Journal Club	0	Spring	1 st year	
BIS 623	Advanced Regression Models [or S&DS 612 Linear Models]	1	Fall		
BIS 628	Longitudinal and Multilevel Data Analysis	1	Spring		
BIS 630	Applied Survival Analysis [or BIS 643 Theory of Survival Analysis]	1	Spring		
BIS 678	Statistical Practice I	1	Fall	2 nd year	
BIS 679	Advanced Statistical Programming in SAS and R	1	Fall		
BIS 681	Statistical Practice II	1	Spring	2 nd year	
EPH 508	Foundations of Epidemiology and Public Health	1	Fall	1 st year	
EPH 608	Frontiers of Public Health *	1	Fall and Spring	1 st year	Offered both terms – only need to take 1 term
EPH 600	Research Ethics and Responsibilities	0	Fall	1 st year	
S&DS 541	Probability Theory [or S&DS 600 Advanced Probability or S&DS 551 Stochastic Process]	1	Fall	1 st year	S&DS 600 and S&DS 551 offered in Spring
S&DS 542	Theory of Statistics [or S&DS 610 Statistical Inference]	1	Spring	1 st year	S&DS 610 offered in Fall
BIS 695	Summer Internship in Biostatistical Research	0	Spring		Register in Spring for Summer
MS Electives in Biostatistics (2 course units) Additional electives attached					
<i>Two of the following:</i>					
BIS 557	Computational Statistics	1	Fall		
BIS 567	Bayesian Statistics	1	Fall		
BIS 643	Theory of Survival Analysis	1	Spring		Cannot fulfill elective if substituted for BIS 630
BIS 646	Nonparametric Statistical Methods and their Applications	1	Spring		
BIS 651	Spatial Statistics in Public Health	1	Spring		
BIS 691	Theory of Generalized Linear Models	1	Spring		
MS Electives in Statistics and Data Sciences (3 course units)					
<i>Three of the following OR any other S&DS 600 level course</i>					
S&DS 563	Multivariate Statistical Methods for the Social Sciences	1	Spring		
S&DS 565	Applied Data Mining and Machine Learning	1	Fall and Spring		
S&DS 612	Linear Models	1	Fall		Cannot fulfill elective if substituted for BIS 623
S&DS 555	Introduction to Machine Learning	1	Fall		
Other Courses					
EPH 100	Professional Skills Series	0	Fall and Spring	1 st year	Required to graduate
BIS 649 and BIS 650	Master's Thesis Research Students choosing this option must present their research in a public seminar to graduate	2	Fall and Spring	2 nd year	Optional -if chosen student must still fulfill all other requirements listed above

*Students entering the program with an MPH or relevant graduate degree may be exempt from this requirement.