B.S. IN MATHEMATICS WITH A CONCENTRATION IN STATISTICS (MA.STAT.BS)

Code	Title	Credits
Major Requirements/Mathematics (49 credits)		
(Satisfies Mathematics in General Education)		
MA-120	Introduction to Mathematical Reasoning	4
MA-125	Calculus with Analytic Geometry I	4
MA-126	Calculus with Analytic Geometry II	4
MA-311	Differential Equations	3
MA-221	Linear Algebra	3
MA-225	Calculus with Analytic Geometry III	4
Select one of the following:		3
(MA-314 satisfies Reasoned Oral Discourse (RD) in General Education [1]*)*		
MA-314	Number Theory	
MA-317	Geometry	
MA-318	Combinatorics and Graph Theory	
MA-220	Probability and Statistics I	3
MA-320	Probability and Statistics II	3
MA-350	Computation and Statistics	3
MA-415	Real Analysis	3
MA-419	Introduction to Mathematical Modeling	3
MA-421	Design of Experiments and ANOVA	3
MA-440	Regression and Time Series Analysis	3
MA-460	Multivariate and Categorical Statistics	3
MA Interdisciplinary Requirements (8-10 credits)		
(Satisfies Natural Sciences in General Education)		
Select one of the following groups:		8-10
Group A (8 credits)		
CE-111	General Chemistry I	
CE-111L	General Chemistry Laboratory I	
CE-112	General Chemistry II	
CE-112L	General Chemistry Laboratory II	
Group B (10 credits)		
PH-211	General Physics with Calculus I	
PH-211L	General Physics with Calculus Laboratory I	
PH-212	General Physics with Calculus II	
PH-212L	General Physics with Calculus Laboratory II	
Group C (8 credits)		
BY-109	Introduction to Biodiversity and Evolution	
BY-110	Introduction to Cell and Molecular Biology	
Free Electives (25-27 credits)		
Complete 25-27 of free elective credits. [2]		25-27
General Education Requirements (36 credits)		
Complete 36 credits as outlined on the General Education table. [3]		36
Total Credits		120

[1] *If course selection satisfies a General Education requirement, additional free electives may be permitted. See advisor.*

[2] *Please consult with your advisor regarding the required number of free electives that must be completed.*

[3] *The General Education curriculum requires the completion of 45 credits. However, students may be able to share credits from within their major or interdisciplinary requirements. Please consult with your advisor to determine which* General Education *(*http://catalog.monmouth.edu/undergraduate-catalog/academic-programs-support-services-regulations/general-education-requirements/*) courses must be completed.*

Notes

- 54 credits must be completed at the 200 level or higher.

Sequence Chart

First Year

Fall	Credits	Spring	Credits
EN-101 College Composition I	3	EN-102 College Composition II	3
MA-125 Calculus with Analytic Geometry I (Gen*Ed Mathematics)	4	MA-120 Introduction to Mathematical Reasoning	4
Gen*Ed Historical Perspectives (HS.SV)	3	MA-126 Calculus with Analytic Geometry II	4
Gen*Ed Aesthetics (AT) AR,DA,MU,TH	3	Gen*Ed Social Science Survey (SS.SV)	3
Gen*Ed Cultural Diversity (CD) or Global Understanding (GU)	3	Free Electives	3
Semester Credits	16	Semester Credits	17

Second Year

Fall	Credits	Spring	Credits
MA-220 Probability and Statistics I	3	MA-320 Probability and Statistics II	3
MA-221 Linear Algebra	3	CE-112 & CE-112L or PH-212 & PH-212L or BY-110	5
Gen*Ed Technological Literacy (TL)	3	Gen*Ed Historical Perspectives (HS.SV) or Social Science Survey (SS.SV)	3
CE-111 & CE-111L or PH-211 & PH-211L or BY-109	5	MA-225 Calculus with Analytic Geometry III	4
Semester Credits	14	Semester Credits	15

Third Year

Fall	Credits	Spring	Credits
MA-311 Differential Equations	3	MA-440 Regression and Time Series Analysis	3
MA-421 Design of Experiments and ANOVA	3	Free Electives	6
EN-2xx Gen*Ed Literature (LIT)	3	MA-314, MA-317, or MA-318 (MA-314 is Reasoned Oral Discourse (RD)	3
Gen*Ed Reasoned Oral Discourse (RD)	3	FO-xx Gen*Ed World Language	3
Free Electives	3		
Semester Credits	15	Semester Credits	15

Fourth Year

Fall	Credits	Spring	Credits
MA-350 Computation and Statistics	3	MA-419 Introduction to Mathematical Modeling	3
MA-415 Real Analysis	3	MA-460 Multivariate and Categorical Statistics	3
Free Electives	7	Free Electives	6

	Gen*Ed Interdisciplinary Perspectives (ISP)	3
Semester Credits	13 Semester Credits	15

Total Credits 120