MATHEMATICS (STATISTICS FOR DATA SCIENCE) - BACHELOR OF SCIENCE (ONLINE)

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and english. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

Some students may be able to bypass one or more courses in the calculus sequence MATH 1511G - MATH 1521G - MATH 2530G. The calculus sequence and Linear Algebra provide knowledge that is basic to further work, and students are advised to complete them or their equivalent as early as possible.

First Year		
Fall		**Credits**
MiniSemester 1		
ENGL 1110G	Composition I	4
MATH 1511G	Calculus and Analytic Geometry I [1]	4
MiniSemester 2		
CSCI 1220	Computer Programming Fundamentals: Python	3
Area III: Lab Science [2]		4
	Credits	**15**
Spring		
MiniSemester 1		
ENGL 2210G	Professional and Technical Communication	3
MATH 1521G	Calculus and Analytic Geometry II	4
MiniSemester 2		
Area III/IV: Lab Science OR Social/Behavioral Science [2]		3-4
CSCI 1235	R Programming I	3
Elective [3]		2
	Credits	**15-16**
Second Year		
Fall		
MiniSemester 1		
COMM 1115G	Introduction to Communication	3
MATH 2530G	Calculus III	3
Area VI: Creative and Fine Arts Course [2]		3
MiniSemester 2		
MATH 1350G	Introduction to Statistics	3
Area V: Humanities Course [2]		3
	Credits	**15**
Spring		
MiniSemester 1		
VWW Course [4]		3
Elective [3]		3
MiniSemester 2		
MATH 2415	Introduction to Linear Algebra	3
I E 311	Engineering Data Analysis	3
Elective [3]		3
	Credits	**15**
Third Year		
Fall		
MiniSemester 1		
Area IV: Social/Behavioral Science Course [2]		3
STAT 3110	Statistics for Engineers and Scientists	3
Elective [3]		3
MiniSemester 2		
VWW Course [4]		3
Upper Division Elective [3]		3
	Credits	**15**
Spring		
MiniSemester 1		
MATH 4230	Applied Linear Algebra	3
Upper Division Elective [3]		3
MiniSemester 2		
I E 413	Engineering Operations Research I	3
MATH 3160	Introduction to Ordinary Differential Equations	3
Elective [3]		3
	Credits	**15**
Fourth Year		
Fall		
MiniSemester 1		
I E 423	Engineering Operations Research II	3
MATH 3140	Introduction to Numerical Methods	3
MiniSemester 2		
Elective [3]		3
STAT 4210	Probability: Theory and Applications	3
Upper Division Elective [3]		3
	Credits	**15**
Spring		
MiniSemester 1		
STAT 4220	Statistics: Theory and Applications	3
E E 465	Machine Learning I	3
MiniSemester 2		
Electives [3]		6
Upper Division Electives [3]		3
	Credits	**15**
	Total Credits	**120-121**

1. MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G first.
2. See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses.
3. Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

[4] See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses.