MATHEMATICS (COMPUTATIONAL MATHEMATICS) - BACHELOR OF SCIENCE

A Suggested Plan of Study

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 Calculus and Analytic Geometry I - MATH 1521G Calculus and Analytic Geometry II, MATH 2530G Calculus III.The calculus sequence, Introduction to Higher Mathematics, 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		Credits
ENGL 1110G	Composition I (C- or better)	4
MATH 1511G or MATH 1511H	Calculus and Analytic Geometry I (C- or better) [1] or Calculus and Analytic Geometry I Honors	4
Area III: Laboratory Science Course [2]		4
Non - Departmental Required Course [4]		4
Choose one from the following:		3
ENGL 2130G	Advanced Composition	
ENGL 2210G	Professional and Technical Communication	
ENGL 2215G	Advanced Technical and Professional Communication	
Either an Area III/IV: Laboratory Science Course or Social/Behavioral Sciences Course [2]		3-4
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II (C- or better) or Calculus and Analytic Geometry II Honors	4
Elective Course(s) [3]		4
	Credits	**30-31**
Second Year		
Choose one from the following:		3
ACOM 1130G	Effective Leadership and Communication in Agriculture	
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
HNRS 2175G	Introduction to Communication Honors	
Area V: Humanities Course [2]		3
MATH 2415	Introduction to Linear Algebra	3
MATH 2530G	Calculus III	3
Elective Courses [3]		6
Area IV: Social/Behavioral Sciences Course [2]		3
Area VI: Creative and Fine Arts Course [2]		3
MATH 1531	Introduction to Higher Mathematics	3
MATH/STAT Upper - Division Elective Course [6]		3
	Credits	**30**
Third Year		
Viewing a Wider World Course [5]		3
STAT 3110	Statistics for Engineers and Scientists	3
Non - Departmental Required Course [4]		3
Elective Courses [3]		6
MATH 3140	Introduction to Numerical Methods	3
MATH/STAT Upper - Division Elective Course [6]		3
Elective Courses - Upper Division [3]		9
	Credits	**30**
Fourth Year		
MATH/STAT Upper - Division Elective Course [6]		3
Viewing a Wider World Course [5]		3
Non - Departmental Requirement Courses [4]		6
Elective Course(s) - Upper Division [3]		6
Elective Courses [3]		9
STAT 4210	Probability: Theory and Applications	3
	Credits	**30**
	Total Credits	**120-121**

1. Math Placement: MATH 1511G Calculus and Analytic Geometry I is the starting Math course for the degree, however, students may need to complete any prerequisites prior to enrolling into this course.
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. Choose from CSCI 2220 Introduction to Data Structures and Algorithms, CSCI 3720 Data Structures and Algorithms, CSCI 3730 Compilers and Automata Theory, CSCI 3790 Algorithm Design & Implementation, CSCI 4425 Introduction to Deep Learning, or CSCI 4430 Graph Data Mining.
5. See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section for a full list of courses.
6. MATH/STAT Upper division courses that cannot be taken to fulfill this requirement: MATH 3997 Directed Readings MATH 4991 Undergraduate Research, and MATH 4997 Directed Reading.