

MATHEMATICS (APPLIED MATHEMATICS) - BACHELOR OF SCIENCE

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, 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
C S 172	Computer Science I (C- or better)	4
Choose one from the following:		3
ENGL 2130G	Advanced Composition	
ENGL 2210G	Professional and Technical Communication Honors	
ENGL 2215G	Advanced Technical and Professional Communication	
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II (C- or better) or Calculus and Analytic Geometry II Honors	4
Either an Area III/IV: Laboratory Science Course or Social/Behavioral Science Course ²		3-4
Area V: Humanities Course ²		3
Elective Course ³		1
Credits		30-31

Second Year		Credits
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 VI: Creative and Fine Arts Course ²		3
MATH 2415	Introduction to Linear Algebra (C- or better)	3
MATH 2530G	Calculus III (C- or better)	3
Elective Course(s) ³		6
Area IV: Social/Behavioral Science Course ²		3
MATH 1531	Introduction to Higher Mathematics	3
MATH 3160	Introduction to Ordinary Differential Equations	3
Cluster Course (C- or better)		3
Credits		30

Third Year		Credits
VWW - Viewing a Wider World Course ⁴		3
STAT 3110	Statistics for Engineers and Scientists (C- or better)	3
MATH 4210	Complex Variables (C- or better)	3
Cluster Course (C- or better)		6
Elective Course(s) ^{3,5}		9
MATH 3140	Introduction to Numerical Methods (C- or better)	3
MATH 4220	Fourier Series and Boundary Value Problems (C- or better)	3
Credits		30

Fourth Year		Credits
VWW - Viewing a Wider World ⁴		3
MATH/STAT Elective Course: 300/3000-level or higher (C- or better) ^{6,7}		3
STAT 4210	Probability: Theory and Applications (C- or better)	3
Elective Course - Upper Division ³		12
MATH/STAT Elective Course: 400/4000-level (C- or better) ⁷		3
Elective Course(s) ³		6
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 See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section for a full list of courses.

⁵ Students who plan to get a Masters in MATH should take MATH 3120 Introduction to Analysis as an elective.

⁶ MATH/STAT 300/3000-level courses that cannot be taken to fulfill this requirement: MATH 3997 Directed Readings.

⁷ MATH/STAT 400-level courses that cannot be taken to fulfill this requirement: MATH 4991 Undergraduate Research, MATH 4997 Directed Reading, STAT 400 Undergraduate Research.