MATHEMATICS (GENERAL MATHEMATICS) - BACHELOR OF SCIENCE

Students seeking a foundation in pure mathematics and flexibility in the curriculum are encouraged to pursue the General Mathematics Concentration. Students choosing this emphasis should work closely with a faculty advisor to select courses appropriate to their interests.

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Prefix	Title	Credits
General Education		
Area I: Communications		
English Composition - Level 1		
ENGL 1110G	Composition I	4
English Composition - Level 2		
Choose one from the following:		3
ENGL 2130G	Advanced Composition	
ENGL 2210G	Professional and Technical Communication Honors	
ENGL 2215G	Advanced Technical and Professional Communication	
Oral Communication		
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 II: Mathematics		
MATH 1511G	Calculus and Analytic Geometry I (Departmental/College Requirement) [1]	4
or MATH 1511H	Calculus and Analytic Geometry I Honors	
Area III/IV: Laboratory Sciences and Social/Behavioral Sciences		*10-11*
Area III: Laboratory Science Course (4 credits) [2]		
Area IV: Social/Behavioral Sciences Course (3 credits) [2]		
Either an Area III/IV: Laboratory Sciences Course or Social/Behavioral Science Course (4 credits or 3 credits) [2]		
Area V: Humanities [2]		*3*
Area VI: Creative and Fine Arts [2]		*3*
General Education Elective		
MATH 1521G	Calculus and Analytic Geometry II (Departmental/College Requirement)	4
or MATH 1521H	Calculus and Analytic Geometry II Honors	
Viewing a Wider World [3]		**6**
Departmental/College Requirements		
MATH 1531	Introduction to Higher Mathematics	3
MATH 2415	Introduction to Linear Algebra	3
MATH 2530G	Calculus III	3
MATH 3110	Introduction to Modern Algebra	3
MATH 3120	Introduction to Analysis	3
Departmental Electives		
Select at least 18 additional upper-division credits of approves courses prefixed MATH or STAT (at least 12 must be 4000-level), excluding the following:		18
MATH 3997	Directed Readings	
MATH 4991	Undergraduate Research	
MATH 4997	Directed Reading	
STAT 400	Undergraduate Research	
Non-Departmental Requirements (in addition to Gen.Ed/VWW) [4]		
C S 172	Computer Science I	4
Second Language Requirement: (not required)		
Electives, to bring the total credits to 120 [5]		**43**
18 credits must be Upper-Division		
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. 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.
4. A grade of C- or better must be earned.
5. 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.

Note: It is strongly recommended that mathematics majors in the General Mathematics Concentration consider a minor or second major in an area that uses mathematics, such as physics or computer science. All programs should be planned with the guidance of a departmental advisor. More information is available at www.math.nmsu.edu. *(*https://math.nmsu.edu/*)*

Second Language Requirement

For the Bachelor of Science in Mathematics with a Concentration in General Mathematics there is no second language requirement.

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
C S 172	Computer Science I (C- or better) [1]	4
Area: Laboratory Science Course [2]		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	
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 [3]		3
	Credits	**29-30**
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 Course(s) [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 Elective Course: 300-level or higher (C- or better) [4,6]		3
	Credits	**30**
Third Year		
MATH 3110	Introduction to Modern Algebra	3
Viewing a Wider World Course [5]		3
MATH/STAT Elective Course: 300-level or higher (C- or better [4,6]		3
Elective Course(s) [3]		12
MATH 3120	Introduction to Analysis	3
MATH/STAT Elective Coruse: 400/4000-level (C- or better) [6]		3
Elective Course - Upper Division [3]		3
	Credits	**30**
Fourth Year		
MATH/STAT Elective Course(s): 400/4000-level (C- or better) [6]		9
Viewing a Wider World Course [5]		3
Elective Course(s) - Upper Division [3]		15
Elective Course [3]		4
	Credits	**31**
	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] MATH/STAT 3000-level courses that cannot be taken to fulfill this requirement: MATH 3997 Directed Readings.

[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 400/4000-level courses that cannot be taken to fulfill this requirement: MATH 4991 Undergraduate Research, MATH 4997 Directed Reading, STAT 400 Undergraduate Research.