BACHELOR OF ARTS IN MATHEMATICS: CONCENTRATION IN MATHEMATICS FOR LIBERAL ARTS ROADMAP – QUANTITATIVE REASONING CATEGORY III/IV

120 Total Units Required
Minimum Number of Units in the Major: 43

This roadmap is a suggested plan of study and does not replace meeting with an advisor. Please note that students may need to adjust the actual sequence of courses based on course availability. Please consult your Degree Planner (https://registrar.sfsu.edu/degreeplanner/) and an advisor for further guidance.

To avoid taking additional units, it is recommended that you meet the **SF State Studies** (AERM, GP, ES, SJ) requirements within your GE or major.

Course	Title	Units
First Semester		
MATH 197	Prelude to Calculus I (Prerequisite for MATH 226) [1]	3
GE Area 1: English Communication		3
GE Area 3: Arts and Humanities		3
GE Area 4: Social and Behavioral Sciences [2]		3
Complementary Studies or SF State Studies or University Elective [3]		3
	Units	**15**
Second Semester		
MATH 198	Prelude to Calculus II (GE 2, Prerequisite for MATH 226) [1]	3
GE Area 1A: English Composition [4]		3
GE Area 1: English Communication		3
GE Area 3: Arts and Humanities		3
GE Area 5: Physical and Biological Sciences [5]		3-4
	Units	**15-16**
Third Semester		
MATH 226	Calculus I (Major Core, GE 2) [1]	4
GE Area 4: Social and Behavioral Sciences [2]		3
GE Area 5: Physical and Biological Sciences [5]		3-4
GE Area 6: Ethnic Studies (https://bulletin.sfsu.edu/undergraduate-education/general-education/areasix/)		3
Complementary Studies or SF State Studies or University Elective [3]		3
	Units	**16-17**
Fourth Semester		
MATH 227	Calculus II (Major Core)	4
Select One (Major Core): [6]		3
MATH 209	Mathematical Computing	
CSC 101	Introduction to Computing	
CSC 309	Computer Programming	
MATH 301GW	Exploration and Proof - GWAR (Major Core)	3
MATH 325	Linear Algebra (Major Core)	4
	Units	**14**
Fifth Semester		
MATH 228	Calculus III (Major Core)	4
MATH 335	Modern Algebra (Major Core)	3
MATH 370	Real Analysis I (Major Core)	3
Select One: [6]		4
CSC 215	Intermediate Computer Programming ((if CSC 101 taken))	
Complementary Studies or SF State Studies or University Elective (if MATH 209 or CSC 309 taken)		
	Units	**14**
Sixth Semester		
Concentration Elective (15 Units Total) - Take Two [7]		6
GE Area 3UD: Upper-Division Arts or Humanities		3
GE Area 4UD: Upper-Division Social and Behavioral Sciences		3
U.S. and California Government (https://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg)		3
	Units	**15**
Seventh Semester		
Concentration Elective (15 Units Total) - Take Two [7]		6
GE Area 5UD or 2UD: Upper-Division Sciences or Upper-Division Mathematical Concepts		3
Complementary Studies or SF State Studies or University Elective – Take Two [3]		7
	Units	**16**
Eighth Semester		
Concentration Elective (15 Units Total) [7]		3
Complementary Studies or SF State Studies or University Elective - Take Four [3]		12
	Units	**15**
	Total Units	**120-122**

[1] Students should use their Pathway/Category (https://gatorsmartstart.sfsu.edu/pathways/) to determine the appropriate GE 2 course option. For directions on how to view your Pathway/Category,

visit how to find your pathway (https://gatorsmartstart.sfsu.edu/howtofindyourpathways/). Questions? Contact Gator Smart Start. (https://gatorsmartstart.sfsu.edu/)

[2] First-time freshmen must take one lower-division Area 4 course that meets US History (USH).

[3] **Complementary Studies**
Students in the B.A. Math program will satisfy the Complementary Studies requirement by taking 12 units of courses in the College of Science and Engineering outside of Math.

[4] Students should use their Pathway/Category (https://gatorsmartstart.sfsu.edu/pathways/) to determine the appropriate GE 1A course option. For directions on how to view your Pathway/Category, visit how to find your pathway (https://gatorsmartstart.sfsu.edu/howtofindyourpathways/). Questions? Contact Gator Smart Start. (https://gatorsmartstart.sfsu.edu/)

[5] Consider taking a class combined with a laboratory or a separate lab to fulfill 5C if not already satisfied.

[6] CSC 101 and CSC 215 must both be taken to fulfill this requirement. CSC 101 and CSC 215 are only recommended if students are double-majoring or minoring in Computer Science. All other students should take either MATH 209 or CSC 309.

[7] **Concentration Electives (15 units)**
Five MATH courses numbered 300 or above except MATH 375, MATH 475, and MATH 565.