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

120 Total Units Required
Minimum Number of Units in the Major: 42

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 an advisor in your major program for further guidance.

Course	Title	Units
First Semester		
ENG 104	Writing the First Year: Finding Your Voice Stretch I [1]	3
MATH 197	Prelude to Calculus I (Prerequisite for MATH 226) [2,3]	3
GE Area A [4]		3
GE Area C		3
GE Area D		3
	Units	**15**
Second Semester		
ENG 105	Writing the First Year: Finding Your Voice Stretch II (A2) [1]	3
MATH 198	Prelude to Calculus II (Prerequisite for MATH 226, B4) [2,3]	3
GE Area A		3
GE Area C		3
GE Area D		3
	Units	**15**
Third Semester		
MATH 226	Calculus I (Major Core, B4) [2,3]	4
GE Area B: Physical Science (B1) and Laboratory Science (B3) [5]		3-4
GE Area C		3
GE Area E		3
Complementary Studies or SF State Studies or University Elective [6]		3
	Units	**16-17**
Fourth Semester		
Select One (Major Concentration):		3
CSC 210	Introduction to Computer Programming	
CSC 309	Computer Programming	
MATH 227	Calculus II (Major Core)	4
GE Area B: Life Science (B2) and Laboratory Science (B3) [5]		3-4
Complementary Studies or SF State Studies or University Elective [6]		3
	Units	**13-14**
Fifth Semester		
MATH 228	Calculus III (Major Core)	4
MATH 301GW	Exploration and Proof - GWAR (Major Core)	3
GE Area F [±]		3
GE Area UD-D: Upper-Division Social Sciences (Consider SF State Studies Course)		3
U.S. and California Government (http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg)		3
	Units	**16**
Sixth Semester		
MATH 325	Linear Algebra (Major Core)	3
Concentration Elective (15 Units Total) - Take Two [7]		6
GE Area UD-C: Upper-Division Arts and/or Humanities (Consider SF State Studies Course)		3
Complementary Studies or SF State Studies or University Elective [6]		3
	Units	**15**
Seventh Semester		
MATH 335	Modern Algebra (Major Core)	3
MATH 370	Real Analysis I (Major Core)	3
Concentration Elective (15 Units Total) - Take One [7]		3
GE Area UD-B: Upper-Division Physical and/or Life Sciences (Consider SF State Studies Course)		3
Complementary Studies or SF State Studies or University Elective [6]		3
	Units	**15**
Eighth Semester		
Concentration Elective (15 Units Total) - Take Two [7]		6
Complementary Studies or SF State Studies or University Elective - Take Three [6]		9
	Units	**15**
	Total Units	**120-122**

[1] ENG 114 can only be taken if you complete Directed Self-Placement (DSP) and select ENG 114; if you choose ENG 104/ENG 105 through DSP you will satisfy A2 upon successful completion of ENG 105 in the second semester; multilingual students may be advised into alternative English courses.

[2] To determine the best B4 course option, students should complete the online advising activity at mathadvising.sfsu.edu (https://mathadvising.sfsu.edu/). Questions? Contact Gator Smart Start. (https://gatorsmartstart.sfsu.edu/)

[3] QR Category III students with a grade of B or higher in high school pre-calculus in the past year may be able to enroll in MATH 226. Please see a department advisor.

[4] 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.

[5] Consider taking a class combined with a laboratory or a separate lab to fulfill B3 if not already satisfied.

[6] **Complementary Studies**
Students in the B.A. Math program will satisfy the Complementary Studies requirement with the completion of courses satisfying the General Education B1 Physical Science requirement, the General Education B2 Life Science requirement, the Upper-Division General Education UD-B (Physical and/or Life Sciences) requirement, and the computer programming course required for the major.

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

± Given catalog rights, fall 2022 transfer students do not need to complete an Area F course.