

BACHELOR OF ARTS IN MATHEMATICS: CONCENTRATION IN TEACHING ROADMAP

120 Total Units Required

Minimum Number of Units in the Major: 46

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 114	Writing the First Year: Finding Your Voice (A2) ¹	3
MATH 226	Calculus I (Major Core, B4) ²	4
GE Area A ³		3
GE Area C		3
GE Area D		3
Units		16

Second Semester		
MATH 227	Calculus II (Major Core)	4
GE Area A		3
GE Area C		3
GE Area D		3
GE Area E		3
Units		16

Third Semester		
Select One (Major Core):		3
MATH 309	Mathematical Computing	
CSC 210	Introduction to Computer Programming	
CSC 215	Intermediate Computer Programming	
CSC 309	Computer Programming	
MATH 228	Calculus III (Major Core)	4
GE Area B: Physical Science (B1) and Laboratory Science (B3) ⁴		3-4
Complementary Studies or SF State Studies or University Elective - Take Two ⁵		6
Units		16-17

Fourth Semester

MATH 301GW	Exploration and Proof - GWAR (Major Core)	3
MATH 324	Probability and Statistics with Computing (Major Concentration)	3
GE Area B: Life Science (B2) and Laboratory Science (B3) ⁴		3-4
GE Area C		3
Complementary Studies or SF State Studies or University Elective ⁵		3
Units		15-16

Fifth Semester

MATH 310	Elementary Number Theory (Major Concentration)	3
MATH 325	Linear Algebra (Major Core)	4
Select One (Major Concentration):		3
MATH 575	Mathematics in the Middle School Classroom	
MATH 576	Math in Middle Schools II	
MATH 577	Math in Middle School III	
GE Area F [±]		3
GE Area UD-B: Upper-Division Physical and/or Life Sciences		3
Units		16

Sixth Semester

MATH 335	Modern Algebra (Major Core)	3
MATH 350	Geometry (Major Concentration)	3
GE Area UD-C: Upper-Division Arts and/or Humanities		3
U.S. and California Government (http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg)		3
Complementary Studies or SF State Studies or University Elective ⁵		3
Units		15

Seventh Semester

MATH 370	Real Analysis I (Major Core)	3
MATH 475	Capstone Course for Secondary Teachers of Mathematics (Major Concentration) ⁶	3
GE Area UD-D: Upper-Division Social Sciences		3
Complementary Studies or SF State Studies or University Elective ⁵		3
Units		12

Eighth Semester

MATH 375	Field Study for Secondary Teachers (Major Concentration)	3
Complementary Studies or SF State Studies or University Elective - Take Four ⁵		11
Units		14
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 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.

⁴ Consider taking a class with a combined laboratory or a separate lab to fulfill B3 if not already satisfied.

⁵ **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.](#)

⁶ MATH 475 serves as the capstone course for the major.

± Given catalog rights, fall 2023 transfer students do not need to complete an Area F course.