# BACHELOR OF ARTS IN MATHEMATICS: CONCENTRATION IN MATHEMATICS FOR LIBERAL ARTS ROADMAP

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 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 |
| MATH 325 | Linear Algebra (Major Core) | 4 |
| GE Area A | | 3 |
| GE Area C | | 3 |
| GE Area E | | 3 |
| | **Units** | **17** |
| **Third Semester** | | |
| MATH 228 | Calculus III (Major Core) | 4 |
| MATH 301GW | Exploration and Proof - GWAR (Major Core) | 3 |
| GE Area B: Physical Science (B1) and Laboratory Science (B3) [4] | | 3-4 |
| GE Area C | | 3 |
| | **Units** | **13-14** |
| **Fourth Semester** | | |
| MATH 335 | Modern Algebra (Major Core) | 3 |
| Select One (Major Core): | | 3 |
| MATH 209 | Mathematical Computing | |
| CSC 101 | Introduction to Computing | |
| CSC 309 | Computer Programming | |
| GE Area B: Life Science (B2) and Laboratory Science (B3) [4] | | 3-4 |
| GE Area D | | 3 |
| Complementary Studies or SF State Studies or University Elective [5] | | 3 |
| | **Units** | **15-16** |
| **Fifth Semester** | | |
| MATH 370 | Real Analysis I (Major Core) | 3 |
| Concentration Elective (15 Units Total) - Take One [6] | | 3 |
| Select One: | | 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) | | |
| GE Area F [±] | | 3 |
| GE Area UD-D: Upper-Division Social Sciences | | 3 |
| | **Units** | **16** |
| **Sixth Semester** | | |
| Concentration Elective (15 Units Total) - Take Two [6] | | 6 |
| 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** | | |
| Concentration Elective (15 Units Total) - Take One [6] | | 3 |
| GE Area UD-B: Upper-Division Physical and/or Life Sciences | | 3 |
| Complementary Studies or SF State Studies or University Elective – Take Three [5] | | 9 |
| | **Units** | **15** |
| **Eighth Semester** | | |
| Concentration Elective (15 Units Total) - Take One [6] | | 3 |
| Complementary Studies or SF State Studies or University Elective - Take Four [5] | | 10 |
| | **Units** | **13** |
| | **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 combined with a 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 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.

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

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