Bachelor of Arts in Mathematics: Concentration in Mathematics for Advanced Study – MATH Associate Degree for Transfer (ADT) Roadmap

San Francisco State University Bulletin 2023-2024

BACHELOR OF ARTS IN MATHEMATICS: CONCENTRATION IN MATHEMATICS FOR ADVANCED STUDY – MATH ASSOCIATE DEGREE FOR TRANSFER (ADT) ROADMAP

This is a sample pathway for students who transfer to San Francisco State University in the current Bulletin year with an AS-T in Mathematics. At least 12 units in the major (MATH 226, MATH 227, MATH 228) and all lower-division GE requirements have been satisfied. Additional units in the major may have been satisfied. Check with a major advisor about the most appropriate course sequence. **Degree completion guaranteed in 60 units; see the Associate Degree for Transfer (ADT) section for more information (http://bulletin.sfsu.edu/undergraduate-admissions/transfer-students/).**

To Do at SF State:

Enough total units to reach 120 minimum for graduation; 30 units minimum at the upper-division level; to include the following:

University-Wide Requirements: 9-15 Units

- American Institutions (0-6 units): US History, US Government, California State and Local Government requirements if not taken before transfer.
- Upper-Division GE (9 units): Courses required for the major may double-count if approved for UD GE.
- Students entering this major with the AS-T in Mathematics are not required to fulfill SF State Studies requirements.
- Complementary Studies: Consult with a department advisor on how transfer units and/or SF State units can be applied to ensure degree completion within 60 units.

Mathematics for Advanced Study Major: 33-36 Units

MATH 226-MATH 227-MATH 228 met in transfer; CSC 210 may have been met in transfer.

- Core (15 units)
- Concentration (18-21 units)

University Electives: 9 or More Units

Depends on course choices made at the community college, how transferred units are applied to the requirements above, and course choices at SF State. Some courses may meet more than one requirement, e.g., UD GE and the major.

Course	Title	Units
First 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 301GW	Exploration and Proof - GWAR (Major Core)	3
MATH 325	Linear Algebra (Major Core)	4
GE Area UD-B: Upper-Division Physical and/or Life Sciences		3
University Elective		3
	Units	**16**
Second Semester		
MATH 335	Modern Algebra (Major Core)	3
MATH 440	Probability and Statistics I (Major Concentration)	3

Major Concentration Elective (6 units) - Take One [1]		3
US History (http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#USHaGR)		3
or University Elective if US History met before transfer		
University Elective		3
	Units	**15**
Third Semester		
Select One (Major Concentration): [2]		3
MATH 310	Elementary Number Theory	
MATH 376	Ordinary Differential Equations I	
MATH 370	Real Analysis I (Major Core)	3
MATH 435	Modern Algebra II (Major Concentration) [2]	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
or University Elective if US/CA Government met before transfer		
	Units	**15**
Fourth Semester		
MATH 380	Introduction to Complex Analysis (Major Concentration) [3]	3
Select One (Major Concentration): [3]		3
MATH 450	Topology	
MATH 470	Real Analysis II: Several Variables	
MATH 471	Fourier Analysis and Applications	
Major Concentration Elective (6 units) - Take One [1]		3
GE Area UD-D: Upper-Division Social Sciences		3
University Elective		3
	Units	**15**
	Total Units	**61**

[1]   Major Concentration Elective Course numbered 400 or above (*except* MATH 475, MATH 565, MATH 576, and MATH 577).

[2]   MATH 310, MATH 376, and MATH 435 offered fall semesters only.

[3]   MATH 380, MATH 470, and MATH 471 offered spring semesters only.