BACHELOR OF ARTS IN MATHEMATICS: CONCENTRATION IN TEACHING – MATH ASSOCIATE DEGREE FOR TRANSFER 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).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 210 or CSC 309</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or University Elective if met in transfer</td>
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<tr>
<td>MATH 301GW</td>
<td>Exploration and Proof - GWAR 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 325</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>GE Area A: Written English Communication II (A4) 1</td>
<td>3</td>
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<tr>
<td>or University Elective if A4 was met in transfer</td>
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<tr>
<td>GE Area UD-B: Upper-Division Physical and/or Life Sciences (Consider SF State Studies Course)</td>
<td>3</td>
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<tr>
<td>Units</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Second Semester</td>
<td></td>
<td></td>
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<tr>
<td>MATH 324</td>
<td>Probability and Statistics with Computing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 350</td>
<td>Geometry</td>
<td>3</td>
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<tr>
<td>GE Area UD-C: Upper-Division Arts and/or Humanities (Consider SF State Studies Course)</td>
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<tr>
<td>US History (bulletin.sfsu.edu/undergraduate-education/graduation-requirements/#USHaGR)</td>
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<td>or University Elective if US History met before transfer</td>
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<tr>
<td>University Elective</td>
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<td>3</td>
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<tr>
<td>Units</td>
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<tr>
<td>Third Semester</td>
<td></td>
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<tr>
<td>MATH 310</td>
<td>Elementary Number Theory 2 2</td>
<td>3</td>
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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MATH 335</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 375</td>
<td>Field Study for Secondary Teachers 2</td>
<td>3</td>
</tr>
<tr>
<td>GE Area UD-D: Upper-Division Social Sciences (Consider SF State Studies Course)</td>
<td>3</td>
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<tr>
<td>U.S. and California Government (bulletin.sfsu.edu/undergraduate-education/graduation-requirements/#usg)</td>
<td>3</td>
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<tr>
<td>or University Elective if US/CA Government met before transfer</td>
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<tr>
<td>Fourth Semester</td>
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<tr>
<td>MATH 300GW</td>
<td>History of Mathematics - GWAR</td>
<td>3</td>
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<td>MATH 370</td>
<td>Real Analysis I</td>
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<tr>
<td>MATH 475</td>
<td>Capstone Course for Secondary Teachers of Mathematics 3</td>
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<td>University Elective – Take Two</td>
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<tr>
<td>Units</td>
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<tr>
<td>Total Units</td>
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<td>60</td>
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</table>

1 If ENG 214 or equivalent is not completed prior to transfer, MATH 301GW must be taken in a subsequent semester.  
2 MATH 310 and MATH 375 are offered in Fall Semesters only. 
3 MATH 475 is offered spring semesters only.

To Do at SF State: 
Enough total units to reach 120 minimum for graduation; 40 units minimum at the upper division level; to include the following:

University-Wide Requirements: 9–18 Units
- ENG 214 or equivalent A4 course (0–33 units) if not taken before transfer
- American Institutions (0–6 units): US History, US Government, California State and Local Government requirements if not taken before transfer
- Upper division GE, areas B, C and D (9 units)
- 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 Teaching Major: 30–33 Units
MATH 226-MATH 227-MATH 228 met in transfer; CSC 210 may have been met in transfer.
- Core (12 units)
- Concentration (18–21 units)
- Students must meet with a major advisor during their first semester.

University Electives: Nine 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. both in UD GE and the major.