BACHELOR OF SCIENCE IN STATISTICS – 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 and 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>First Semester</th>
<th>Second Semester</th>
<th>Third Semester</th>
<th>Fourth Semester</th>
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<tbody>
<tr>
<td>CSC 210</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
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<tr>
<td>or CSC 309</td>
<td>or Computer Programming for Scientists and Engineers</td>
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<tr>
<td>MATH 325</td>
<td>Linear Algebra</td>
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<td>MATH 440</td>
<td>Probability and Statistics I</td>
<td>3</td>
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<td>GE Area A: Written English Communication II (A4)</td>
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<td>or University Elective if A4 was met in transfer</td>
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<tr>
<td>Upper Division GE: UD-B, UD-C, or UD-D</td>
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<td>or University Elective if CSC 309 met in transfer</td>
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<td>or University Elective if MATH 325 met in transfer</td>
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<td>or University Elective if MATH 440 met in transfer</td>
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<td>or University Elective if GE Area A met in transfer</td>
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<td>or University Elective if upper division GE met in transfer</td>
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1 Major Emphasis (9 units)
Select three courses from one emphasis in consultation with the statistics advisor.

### Business Emphasis
- DS 408 Computer Simulation (3 units)
- DS 412 Operations Management (3 units)
- DS 604 Applied Business Forecasting (3 units)
- DS 624 Quality Management (3 units)
- ISYS 363 Information Systems for Management (3 units)
- ISYS 463 Information Systems Analysis and Design (3 units)
- ISYS 464 Managing Enterprise Data (3 units)
- ISYS 569 Information Systems for Business Process Management (3 units)
- ISYS 650 Business Intelligence (3 units)

### Economics Emphasis
- ECON 301 Intermediate Microeconomic Theory (3 units)
- ECON 302 Intermediate Macroeconomic Theory (3 units)
- ECON 312 Introduction to Econometrics (3 units)
- ECON 715 Mathematical Economics (3 units)
- ECON 731 Econometric Theory (3 units)
- ECON 825 Applied Time Series Econometrics (3 units)

### Science Emphasis
- MATH 370 Real Analysis I (3 units)
- MATH 376 Ordinary Differential Equations I (3 units)
- MATH 400 Numerical Analysis (3 units)
- MATH 430 Mathematics of Optimization (3 units)
- MATH 460 Mathematical Modeling (3 units)
- MATH 491 Game Theory (3 units)
- MATH 493 Introduction to Actuarial Mathematics (3 units)
- MATH 494 Non-Parametric Statistics (3 units)

**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 (0-3 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 the major with the AS-T in Mathematics are not required to fulfill SF State Studies or Complementary Studies requirements.
Statistics Major: 39-42 units
MATH 226, MATH 227 and MATH 228 met in transfer; CSC 210 may have been met in transfer.

- Core (30-33 units)
- Emphasis (9 units) in one of the following areas of emphasis:
  Business, Economics, or Science. Consult with a department advisor.

University Electives: Zero or More Units
Depends on the number of units transferred, course choices made at the community college, and how transferred units are applied to the requirements above.