

# BACHELOR OF SCIENCE IN STATISTICS – MATH ASSOCIATE DEGREE FOR TRANSFER (ADT) ROADMAP

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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 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, Areas B, C, and D (9 units): Courses required for the major may double-count if approved for UD GE.
- 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: 3 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.

Course	Title	Units
<b>First Semester</b>		
Select One (Major Core):		3
CSC 210	Introduction to Computer Programming	
CSC 309	Computer Programming	
University Elective if CSC 210 met in transfer		
MATH 325	Linear Algebra (Major Core)	3
MATH 440	Probability and Statistics I (Major Core)	3
GE Area UD-B: Upper-Division Physical and/or Life Sciences		3
University Elective		3
	<b>Units</b>	<b>15</b>
<b>Second Semester</b>		
MATH 301GW	Exploration and Proof - GVAR (Major Core)	3
MATH 441	Probability and Statistics II (Major Core)	3
MATH 448	Introduction to Statistical Learning and Data Mining (Major Core)	3
GE Area UD-D: Upper-Division Social Sciences		3
US History ( <a href="http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#USHaGR">http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#USHaGR</a> ) or University Elective if US History met in transfer		3
	<b>Units</b>	<b>15</b>
<b>Third Semester</b>		
MATH 338	Introduction to SAS (Major Core)	3
MATH 424	Introduction to Linear Models (Major Core)	3

MATH 442	Probability Models (Major Core)	3
GE Area UD-C: Upper-Division Arts and/or Humanities		3
U.S. and California Government ( <a href="http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg">http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg</a> )		3
or University Elective if US/CA Government met before transfer		
	<b>Units</b>	<b>15</b>
<b>Fourth Semester</b>		
MATH 447	Design and Analysis of Experiments (Major Core)	3
MATH 449	Categorical Data Analysis (Major Core)	3
Guided Electives (9 units) - Take Three <sup>1</sup>		9
	<b>Units</b>	<b>15</b>
	<b>Total Units</b>	<b>60</b>

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**Guided Electives (9 units)**

Select three courses from one of the areas (Science, Economics, Business: Decision Sciences, or Business: Information Systems) listed below:

**Science**

- MATH 370 Real Analysis I (3 units)
- MATH 376 Ordinary Differential Equations I (3 units)
- MATH 400 Numerical Analysis (3 units)
- MATH 425 Applied and Computational Linear Algebra (3 units)
- MATH 430 Mathematics of Optimization (3 units)
- MATH 460 Mathematical Modeling (3 units)

**Economics**

- 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 Methods and Applications (3 units)
- ECON 825 Applied Time Series Econometrics (3 units)

**Business: Decision Sciences**

- 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)

**Business: Information Systems**

- ISYS 363 Information Systems for Management (3 units)
- ISYS 463 Information Systems Analysis and Design (3 units)
- ISYS 569 Information Systems for Business Process Management (3 units)
- ISYS 650 Business Intelligence (3 units)