

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 information (<http://bulletin.sfsu.edu/undergraduate-admissions/transfer-students/>).

Course	Title	Units
First Semester		
CSC 210 or CSC 309	Introduction to Computer Programming (Major Core) or Computer Programming	3
or 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
		Units
		15
Second Semester		
MATH 301 GW	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
MATH 449	Categorical Data Analysis (Major Core)	3
US History (http://bulletin.sfsu.edu/undergraduate-education/graduation-requirements/#USHaGR)		3
or University Elective if US History met in transfer		
		Units
		15
Third Semester		
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 (http://bulletin.sfsu.edu/undergraduate-education/graduation-requirements/#usg)		3
or University Elective if US/CA Government met before transfer		
		Units
		15
Fourth Semester		
MATH 447	Design and Analysis of Experiments (Major Core)	3
Major Emphasis (9 units) - Take Three ¹		9
GE Area UD-D: Upper-Division Social Sciences		3
		Units
		15
		Total Units
		60

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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; 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.