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
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First Semester | | 
CSC 210 or CSC 309 | Introduction to Computer Programming or Computer Programming for Scientists and Engineers | 3
or University Elective if CSC 210 met in transfer |
MATH 325 | Linear Algebra | 3
MATH 440 | Probability and Statistics I | 3
GE Area A: Written English Communication II (A4) | 3
or University Elective if A4 was met in transfer |
Upper Division GE: UD-B, UD-C, or UD-D | 3

Units 15

Second Semester | | 
MATH 301GW | Exploration and Proof - GWAR | 3
MATH 441 | Probability and Statistics II | 3
MATH 448 | Introduction to Statistical Learning and Data Mining | 3
MATH 449 | Categorical Data Analysis | 3
US History (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 | 3
MATH 424 | Introduction to Linear Models | 3
MATH 442 | Probability Models | 3
Upper Division GE: UD-B, UD-C, or UD-D | 3

Units 15

Fourth Semester | | 
MATH 447 | Design and Analysis of Experiments | 3
Major Emphasis – Take Three 1 | 9
Upper Division GE: UD-B, UD-C, or UD-D | 3

Units 15

Total Units 60

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.