Department Of Mathematics Faculty

Federico Ardila
Combinatorics

Sheldon Axler
Functional Analysis

David Bao
Differential Geometry

Matthias Beck
Analytic Number Theory, Discrete Geometry

Henry Boateng
Scientific Computing, Computational Chemistry, Applied Mathematics

Emily Clader
Algebraic Geometry

Luella Fu
Large Scale Statistics

Arek Goetz
Dynamical Systems

Joseph Gubeladze
Algebraic Combinatorics, K-Theory

Shandy Hauk
Mathematics and Statistics Education, Dynamical Systems

Tao He
Statistics, Quantitative Biology

Serkan Hosten
Applied Algebraic Geometry

Eric Hsu
Mathematics Education

Mohammad Kafai
Statistics: Nonparametric

Gerianne Krause
Discrete Mathematics

Judith Kysh
Mathematics Education

Chun-Kit Lai
Harmonic Analysis

Jean-Pierre Langlois
Game Theory

Shidong Li
Applied Computational Harmonic Analysis

Ornella Mattei
Applied Mathematics, Mathematical Modeling

Alexandra Piryatinska
Statistics

Dustin Ross
Algebraic Geometry

Alexander Schuster
Complex Analysis

Kimberly Seashore
Mathematics Education

Thornton Hall 937
Department of Mathematics
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132

Masters of Science in Statistical Data Science

Department of Mathematics
College of Science and Engineering

SAN FRANCISCO STATE UNIVERSITY
The purpose of the program is to deliver a comprehensive curriculum in the field of statistical data science to prepare students with backgrounds in statistics, mathematics, computer science, engineering, and other quantitative fields, for the data science workforce or a doctoral program.

**Admission Requirements**

- **Baccalaureate degree** from a regionally accredited institution, or shall have completed equivalent academic preparation as determined by the appropriate campus authority;
- **Baccalaureate degree** in a quantitative field in but not limited to statistics, mathematics, computer science, physics, engineering or relevant fields. Successful applicants are expected to have completed three semesters of calculus, linear algebra, and upper division undergraduate courses in probability and statistics with a grade of B or better. However, an applicant who is deficient in probability theory and/or statistics may be admitted conditionally on passing MATH 440 Probability and Statistics I and/or MATH 441/741 Probability and Statistics II satisfactorily during the first calendar year of study;
- **Good academic standing** at the last college or university attended;
- **3.0 GPA** in their earned undergraduate degree or in the last 60 semester (90 quarter) units completed, or have earned a post-baccalaureate degree.

**Total Units Required to complete the Degree: 30 Units**

**Required Courses: 15 Units**

- Math 742 Advanced Probability Models 3
- Math 748 Theory and Applications of Statistical and Machine Learning 3
- Math 760 Multivariate Statistical Methods 3
- Math 761 Computational Statistics 3
- Math 895 OR Math 896EXM Internship Project and Expository Paper 3
- Math 899 OR Math 898 Master’s Thesis 3

**Elective Course: 15 Units**

No more than 9 units could be from undergraduate only courses. Per student’s specialization interest and upon Graduate Advisor’s approval, the student will choose a set of electives from one of the following areas:

- **Probability and Statistics Electives:**
  - Math 440 Probability and Statistics I 3
  - Math 441/741 Probability and Statistics II 3
  - Math 424/724 Introduction to Linear Models 3
  - Math 442 Probability Models 3
  - Math 447 Design and Analysis of Experiments 3
  - Math 448 Introduction to Statistical Learning and Data Mining 3
  - Math 449 Categorical Data Analysis 3
  - Math 899 Independent Study 3

- **Mathematics Electives:**
  - Math 400 Numerical Analysis 3
  - Math 430 Mathematics of Optimization 3
  - Math 460 Mathematical Modeling 3
  - Math 471/771 Fourier Analysis and Applications 3
  - Math 477/777 Partial Differential Equations 3
  - Math 495 Introduction to Wavelets and Frames with Applications 3
  - Math 710 Measure and Integration 3
  - Math 725 Advanced Linear Algebra 3

- **Computer Science Electives:**
  - CSC 621/821 Biomedical Imaging and Analysis 3
  - CSC 675/875 Introduction to Database Systems 3
  - CSC 869 Data Mining 3
  - CSC 872 Pattern Analysis Machine Intel 3
  - CSC 874 Topics in Big Data Analysis 3

- **Biology Electives:**
  - BIOL 458 Biometry 3
  - BIOL 638/738 Biometry and Genome Annotation 3
  - BIOL 710 Advanced Biometry 3
  - BIOL 815 Advanced Phylogenetic Analysis 3

**Application Process**

- Apply to San Francisco State University using the Cal State Apply website: [https://www2.calstate.edu/apply](https://www2.calstate.edu/apply)
- Prepare the following documents to upload:
  - **Personal Statement** of Purpose
  - Minimum of two letters of recommendation
  - Transcript(s)

- **International Students** refer to the website: [https://grad.sfsu.edu/content/international-application-submission](https://grad.sfsu.edu/content/international-application-submission)

- If applicant meets the preliminary admissions criteria, then the application is forwarded to the Mathematics Department for final review

**Contacts and Further Information**

MS Graduate Advisors:
- Dr. Mohammad Kafai (kafai@sfsu.edu)
- Dr. Alexandra Piryatinska (alpiryat@sfsu.edu)

Division of Graduate Studies Website: [http://grad.sfsu.edu](http://grad.sfsu.edu)

Office of International Programs Website: [http://oip.sfsu.edu](http://oip.sfsu.edu)

Mathematics Department Website: [http://math.sfsu.edu](http://math.sfsu.edu)