SF State is known for excellence in research, programs, and mentoring in algebrageometry-combinatorics, analysis, applied mathematics, mathematics education, and data science. We offer three undergraduate degree programs, an undergraduate minor in mathematics, and two master's degree programs: Master of Arts in mathematics and Master of Science in statistical data science.

## The City's University

SF State is a comprehensive urban university enrolling more than 24,000 students. The campus is located within the vibrant and beautiful city of San Francisco, with a rich intellectual and cultural life. SF State is best known for a long history of social justice activism and is home to the country's first College of Ethnic Studies. Throughout campus, one has the opportunity to witness this rich history through the honoring of social justice icons; notably in the naming of the Cesar Chavez Center and Malcom X Plaza.

## **For More Information**

Math Department:

math.sfsu.edu (415) 338-2251 E-mail: statmath@sfsu.edu

**Applying:** future.sfsu.edu/admissions

Information for International Applicants: future.sfsu.edu/international

Information for Undocumented Applicants: drc.sfsu.edu (415) 338-2588

### **Tenure-Line Faculty**

Niny Arcila-Maya Algebraic Topology, Topological Data Analysis Federico Ardila Combinatorics Analytical Number Theory, Discrete Geometry Matthias Beck Applied Mathematics, Scientific Computing Henry Boateng **Emily Clader** Algebraic Geometry Luella Fu Large-Scale Statistics Dynamic Systems Arek Goetz Statistics, Quantitative Biology Tao He Shandy Hauk Mathematics and Statistics Education, Dynamic Systems Algebraic Statistics, Combinatorics Serkan Hosten Fric Hsu Mathematics Education Mohammad Kafai **Statistics** Chun-Kit Lai Harmonic Analysis, Fractal Geometry Applied Computational Harmonic Analysis Shidong Li Anandamayee Majumdar Statistics Ornella Mattei Applied mathematics, Harmonic Analysis Alexandra Piryatinska Statistics Algebraic Geometry, Combinatorics Dustin Ross Alexander Schuster **Complex Analysis** Kimberly Seashore Mathematics Education



# Bachelor in Mathematics

San Francisco State University

## Bachelor of Arts in Mathematics

The Bachelor of Arts degree program in mathematics is a liberal arts program that provides a flexible course of study for students with three concentrations designed to meet different career objectives.

#### **Liberal Arts**

The Liberal Arts concentration is for students who desire a broad liberal arts education with an emphasis in mathematics.

#### Teaching

The Teaching concentration is for students whose goal is to teach mathematics in middle school or high school. These students will obtain a solid understanding of the mathematics needed for teaching and classroom experience as volunteers in local public schools. They will also have the opportunity to develop the skills. mathematical flexibility. and perceptiveness to help future students cultivate wonderful, fruitful ideas, and to help students connect their thinking to formal mathematical structures. Students who complete this concentration will have satisfied the early field experience requirement and the subject matter competency requirement for a single subject credential in mathematics.

#### **Advanced Study**

The Advanced Study concentration is for students who plan to pursue a masters or doctoral degree in mathematics. Students who choose this concentration will obtain a solid foundation in the cornerstones of advanced mathematics: linear algebra, abstract algebra, vector analysis, real analysis, and complex analysis.

## Bachelor of Science in Applied Mathematics

The Bachelor of Science in Applied Mathematics responds to the needs of business and industry for applied Applied mathematical scientists. mathematicians and statisticians are employed in such areas as operations research, systems analysis, computing, data analysis, biological sciences, communications research, and in the management sciences.

The primary aim of applied mathematics is to elucidate scientific concepts and to describe and predict scientific phenomena through the use of mathematics. The applied mathematician is at once a mathematical specialist and a systems analyst whose task is to confront complex, real-world problems with mathematical analysis. In business and industry the applied mathematician has opportunities to utilize both background and training in solving problems of a practical nature.



## Bachelor of Science in Statistics

The Bachelor of Science in Statistics is for students who are planning careers as industry, business, statisticians government, biomedical research. Statistics is basic to quantitative research in the biological, physical, and social sciences. Because its methods are based on it requires mathematics, firm understanding of mathematical methods as well as an appreciation of scientific method, computation, and practical problems. To give the student both breadth and depth and to introduce the student to a variety of fields where statistics may be applied, three emphases are offered: science, business, and economics.



Scan to learn more about the Mathematics programs:

