## M.A./M.S. MATHEMATICS

## Admission Requirements

1. Admission to the Graduate Division.
2. International students must have achieved a score of at least 550 on the TOEFL exam (NO TOEFL waiver).
3. Completion of at least 18 semester units of upper division mathematics for the M.A.(at least 24 for the M.S.) with a grade point average of at least a 3.0. The courses taken must be acceptable toward a bachelor's degree in mathematics.
4. Letters of recommendation (1-3), sent directly to the Mathematics Graduate coordinator at the address below.

## IF YOU DO NOT MEET THE ABOVE REQUIREMENTS

Students who meet the minimum requirements for admission to the Graduate Division but do not meet the requirements for admission to the master's degree program may be admitted as Conditionally Classified students.

## Graduation Requirements: M.A./M.S. Mathematics

1. A student finds a Department faculty member willing to serve as a thesis or writing project director. With that director's help, the student chooses a topic for the thesis or writing project.

The student must then pass a Qualifying Examination--oral or written at the student's election--that covers material generally relevant to the area of the proposed thesis or writing project. Specific details about the material to be covered will be determined in consultation with the three-person committee of faculty members who will examine the student.

Note: students must pass this Qualifying Examination before they may begin formal work on a thesis or writing project.
2. Twelve units of 200 - level courses in mathematics for M.A. students, and eighteen units of 200 -level courses in mathematics for M.S. students from the following list. For both M.A. and M.S. students, these courses must include a year sequence.

| Math | 211A...................................Geometry of Projective Spaces |
| :---: | :---: |
| Math | 211B..................................Advanced Topics in Geometry |
| Math | 213A...............................Introduction to Smooth Manifolds |
| Math | 213B......................Introduction to Riemannian Geometry |
| Math | 221A.......................................................Higher Algebra I |
| Math | 221B......................................................Higher Algebra II |
| Math | 226....................................................Theory of Numbers |
| Math | 229.............................................Advanced Matrix Theory |
| Math | 231A.......................................................Real Analysis I |
| Math | 231B......................................................Real Analysis II |
| Math | 233A..............................................Applied Mathematics I |
| Math | 233B.............................................Applied Mathematics II |
| Math | 234.....................................Advanced Dynamical Systems |
| Math | 235...................................Wavelets and their Applications |
| Math | 238......................................Advanced Complex Variables |
| Math | 243A....................................Advanced Numerical Analysis |
| Math | 243B......................Advanced Topics in Numerical Analysis |
| Math | 261A................................Regression Theory and Methods |
| Math | 261B...........................Design and Analysis of Experiments |
| Math | 265................................Time Series Theory and Methods |
| Math | 266...................................Survival Analysis and Reliability |
| Math | 271A..................................................Mathematical Logic |
| Math | 271B..................................Advanced Mathematical Logic |
| Math | 275...............................................................Topology |
| Math | 279A.........................................................Graph Theory |
| Math | 279B..........................................Advanced Graph Theory |
| Math | 285.................................Advanced Topics in Mathematics |

3. Fifteen additional units of electives for M.A. students and (nine for M.S. students). These must be in 100- or 200-level mathematics
courses, with certain exceptions allowed as described in the general catalog. A maximum of 3 units of Math 180 or Math 298 may be included. See below for other restrictions on these units.
4. Satisfy the University's Competency in Written English requirement. For details visit :
www.sjsu.edu/gape/current_students/completing_masters/index.htm
5. Obtain a faculty thesis (or writing project) advisor and complete a thesis (or writing project) in mathematics.

## RESTRICTIONS

Math 101, 105, 106, 107A, 107B, 110L, and education courses applied toward the Single Subject Credential are not applicable toward the M.A. Mathematics nor the M.S. Mathematics degree. Math 133A, 201A, and 201B are not applicable toward the M.S. Mathematics degree.

## Applying for Graduation

With the aid of the Graduate Coordinator, students must complete and file the Departmental Request for Candidacy and Graduate Degree Program form with Graduate Studies before the posted deadline (usually 8 months before proposed graduation date). Students must file the Application for Award of Master's Degree form before posted deadline (usually 3 months before the proposed graduation date). These forms, and the precise deadlines, are available at: www.sjsu.edu/gape/forms and www.sjsu.edu/gape/current_students/deadlines.

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http://www.sjsu.edu/math/
For further information about the mathematics graduate program at SJSU, contact Dr. Richard Kubelka at (408) 924-5132 or email
kubelka@math.sjsu.edu. Visit: www.math.sjsu.edu/~kubelka
For graduate admissions \& program evaluation (for applications and information), visit: www.sjsu.edu/gape or contact (408) 924-2480

Online SJSU Catalog: http://info.sjsu.edu

## Mathematics Faculty

Alperin, Roger (Ph.D., Rice University, 1973) Algebra
Becker, Joanne Rossi (Ph.D., University of Maryland, 1979) Mathematics Education
Beeson, Michael (Ph.D., Stanford University, 1972)
Automated Deduction (theorem-proving by Computers), Software for Learning and Teaching Mathematics, Algorithms for Symbolic Computation, Minimal Surfaces, Constructive Mathematics
Blockus, Marilyn (Ph.D., Johns Hopkins University, 1977) Algebraic Topology
Bremer, Martina (Ph.D., Purdue University, 2006) Biostatistics, Statistics
Cayco, Maria (Ph.D.,Carnegie-Mellon University, 1985)
Numerical Partial Differential Equations, Finite Element Methods, Numerical Linear Algebra, Computational Fluid Dynamics
Crunk, Steven (Ph.D., University of Pennsylvania, 1999) Statistics, Time Series
Dodd, Roger (Ph.D., Hull University, England, 1970) Integrable Equations, Dynamical Systems, General Relativity
Foster, Leslie (Ph.D. Brown University, 1977) Numerical Analysis, Scientific Computation
Goldston, Daniel (Ph.D., University of California, Berkeley, 1981) Number Theory
Hsu, Tim (Ph.D. Princeton University, 1994) Algebra, Combinatorics
Jackson, Bradley (Ph.D., University of Maryland, 1977) Graph Theory, Combinatorics, Analysis of Algorithms
Katsuura, Hidefumi (Ph.D., University of Delaware, 1984) Topology
Kellum, Kenneth (Ph.D., University of Alabama, 1971) Real Analysis, Point-Set Topology
Koev, Plamen (Ph.D., University of California, Berkeley, 2002) Numerical Linear Algebra, Computational Mathematics, Applied Multivariate Statistical Analysis, Random Matrix Theory.
Lee, Bee Leng (Ph.D., University of Wisconsin-Madison, 2000) Statistics, Semiparametric Inference, Survival Analysis
Kubelka, Richard (Ph.D., Stanford University, 1980) Algebraic Topology, Number Theory, Statistics

Maruskin, Jared (Ph.D., University of Michigan, 2008)
Dynamical Systems, Applied Mathematics, Mathematical Physics.
Ng, Ho-Kuen (Ph.D.,University of California, Berkeley, 1982) Algebra, Operations Research, Actuarial Science
Obaid, Samih (Ph.D., Pennsylvania State University, 1977) Elasticity Theory, Fluid Mechanics, Integral Equations, Complex Analysis, Fibonacci Sequence
Pence, Barbara (Ph.D., Stanford University, 1974) Mathematics Education
Peterson, Brian (Ph.D., University of California, Berkeley, 1976) Algebra, Number Theory
Pfiefer, Richard (Ph.D., University of California, Davis, 1982) Geometry, Convexity and Related Inequalities
Rivera, Ferdinand (Ph.D., Ohio State University, 1998) Mathematics Education, Cultural Studies
Roddick, Cheryl (Ph.D., Ohio State University, 1997) Mathematics Education
Saleem, Mohammad (Ph.D., University of California, Davis, 1988)

Numerical Analysis, Mathematical Fluid Dynamics, Computational Linear Algebra, Mathematical Modeling
Schmeichel, Edward (Ph.D., Northwestern University, 1974) Combinatorial Mathematics, Computational Complexity
Shubin, Tatiana (Ph.D., University of California, Santa Barbara, 1983)
Number Theory, Algebra, Finite Geometries, Combinatorics
Simić, Slobodan (Ph.D., University of California, Berkeley, 1995)

Dynamical Systems, Geometric Control Theory, Subriemannian Geometry
Sliva Spitzer, Julie (Ph.D., The University of North Carolina at Chapel Hill, 1998)
Mathematics Education
So, Wasin (Ph.D., University of California, Santa Barbara, 1991) Linear Algebra
Stanley, Maurice (Ph.D., University of California, Berkeley, 1984)

Mathematical Logic

