

## MASTERS OF ARTS IN TEACHING MATHEMATICS

### Admission to the Program

In addition to the general requirements of the university, which include a baccalaureate degree from an accredited college, specific requirements for classification in the program are:

1. Successful completion with a grade of "B" (3.0) or better in course work deemed equivalent to the following courses at California State University, San Bernardino:  
MATH 211: Basic Concepts of Calculus  
MATH 212: Calculus II  
MATH 213: Calculus III  
One of the following two courses:  
MATH 229: Geometry in Two and Three Dimensions  
MATH 529: Advanced Geometry  
MATH 251: Multivariable Calculus I  
MATH 345: Number Theory and Proof  
MATH 372: Combinatorics
2. A teaching credential;
3. Submission of a completed Master of Arts in Teaching with a major in Mathematics (MAT) application form;
4. Completion of the graduate entrance writing requirement;
5. Three letters of recommendation, at least one to address teaching, and at least one regarding academic performance;
6. Submission of a one- or two-page typewritten statement of the student's area of interest, preparation for study in this program and professional goals;
7. Approval by the Graduate Coordinator.

Students who do not meet these criteria may be admitted as conditionally classified graduate students following review by the Department of Mathematics and the College of Education.

### Advising

Each graduate student must be advised by the MAT coordinator or other MAT faculty before enrolling in the program. Students will develop an appropriate course of study based on their preparation and interests in consultation with an advisor. The specific program must be approved by the MAT Graduate Committee prior to Advancement to Candidacy.

In the latter part of the program a student will need a project advisor and two additional members of a project committee, at least one from each of the department of mathematics and the School of Education. The student will enroll in EDUC 600 and MATH 600 depending on the affiliation of the project advisor. Members of the project committee should be selected at least two or three quarters before enrolling in the Graduate Project course.

### Advancement to Candidacy

In order to be advanced to candidacy, the student must

1. Achieve classified status;
2. Submit a formal program of graduate work prepared in consultation with an advisor and approved by the MAT Graduate Committee;

3. Complete at least 15 quarter units and not more than 20 units of applicable work as a graduate student at this university, with a grade point average of at least 3.0 ("B");
4. Gain final approval of the program and of the candidacy itself by the Dean of Graduate Students.

#### Requirements for Graduation

1. Advancement to candidacy for the degree;
2. A minimum of 48 quarter units of acceptable graduate level work as specified below in the formal program;
3. No fewer than 32 units completed in residence at this university;
4. Completion of a graduate project: A project proposal must be approved by the MAT Graduate Committee no later than the quarter preceding enrollment in EDUC 600 or MATH 600. The written project satisfies the graduation writing requirement. Successful completion of the project includes an oral presentation of the project to the faculty. Guidelines for submitting a project proposal and for the project itself are available from the offices of the Department of Mathematics and the College of Education;
5. Submission and approval of a student portfolio assessing and documenting academic progress;
6. A grade point average of at least 3.0 ("B") in the core courses as well as an overall grade point average of 3.0 ("B") in the program, with no course grade being less than "B-;"
7. Any additional general requirements not cited above and listed in the CSUSB Bulletin.

#### Degree Requirements (48 units)

##### Core Courses (44 units)

1. MATH 631. Algebra from a Teaching and Problem Solving Perspective (6 units)
2. MATH 632. Geometry from a Teaching and Problem Solving Perspective (6 units)
3. MATH 633. Trigonometry from a Teaching and Problem Solving Perspective (6 units)
4. MATH 634. Calculus from a Teaching and Problem Solving Perspective (6 units)
5. MATH 635. Statistics and Probability from a Teaching and Problem Solving Perspective (6 units)
6. ESEC 672. Educational Assessment in Mathematics Teaching (4 units)
7. EDUC 607. Introduction to Educational Research (4 units)
8. EDCI 664. Thesis/Project Design in Curriculum and Instruction (2 units)
9. Four units chosen from:
  - EDUC 600. Master's Degree Project (4 units)
  - MATH 600. Master's Degree Project (4 units)
10. MATH 601. Assessment Portfolio (0 units)

##### Elective (4 units)

1. Four units of upper-division mathematics courses, students are encouraged to take MATH 480 if not taken previously. Any mathematics course at the 400- to 600- level may be taken.