

**2011-13 Cal Poly Catalog****Mathematics Department****MASTER OF SCIENCE DEGREE IN MATHEMATICS****General Characteristics**

The master of science program in mathematics prepares students to enter careers in government, industry or teaching. A student who completes the degree is qualified and eligible to teach at the community college level. Many of the graduates of the program also pursue further graduate study at Ph.D.-granting institutions.

**Prerequisites**

Prerequisite to entering the program with a classified or conditionally classified status, the student must have a bachelor's degree from an accredited institution with a minimum grade point average of 2.5 in the last 90 quarter units attempted. Applicants with majors in other areas or applicants with deficiencies in their undergraduate background may be admitted conditionally. For information concerning additional requirements, the student should contact the Graduate Coordinator in the Mathematics Department.

Advancement to candidacy requires completion of 12 units of an approved study plan with a minimum grade point average of 3.0 and satisfactory completion of the preliminary examinations in analysis and algebra.

**BLENDED BS+MS MATHEMATICS**

The blended program provides motivated students with an efficient way to complete a BS and MS in mathematics with both degrees being conferred simultaneously. Students are provided with ample advising to ensure a seamless transition from undergraduate to graduate status.

**Eligibility**

Students majoring in mathematics may apply for the blended program as early as their junior year after completing at least two upper-division mathematics classes and before they have completed 180 units. The Graduate Committee evaluates each applicant individually. Acceptance into the program is based on prior academic performance and the applicant's promise to successfully complete the master's program. See page 60 for additional eligibility criteria.

**Program of Study**

Students must complete the requirements of both the undergraduate and master's program of study for a total of 225 units. However, they are advised to take the undergraduate courses most suitable as preparation for the master's program. They should take the graduate preliminary written examinations at the time they complete the appropriate courses, even possibly before they have graduate status. Finally, the senior project, if sufficiently complex, may be extended into a graduate thesis. This last option is particularly attractive to students participating in one of the many

undergraduate summer research programs available at either Cal Poly or other universities, since the research can then be used as a basis for the senior project and master's thesis.

**CURRICULUM FOR MS MATHEMATICS** *Units*

<b>Required courses</b> .....	32
MATH 520 and MATH 521 Applied Analysis I, II (4)(4)	
MATH 530 and MATH 531 Discrete Math with Applications I, II (4)(4)	
MATH 540 and MATH 541 Topology I, II (4)(4)	
MATH 550 Real Analysis (4)	
MATH 560 Field Theory (4)	
<b>Electives</b> .....	13
Select additional units at the 400 or 500 level as approved by the Graduate Committee.	
<b>Satisfactory completion of the comprehensive examinations.</b>	

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