

**PROPOSAL TO CHANGE THE MASTER PLAN  
(SHORT FORM)**

BS in Mathematics

Proposed Name of Degree:

2002

Proposed Year of Implementation:

Options/ Emphases in the Degree:

Ivona Grzegorczyk, PhD

Faculty Proposing New Program:

**Review and Approval:**

**1. Curriculum Committee Approval:**

Curriculum Chair:

W. J. O'Connor Date: 12/10/01

**2. Academic Senate Approval:**

Chair, Academic Senate:

Den. Rine Date: 12/11/01

**3. Administration Approval:**

President (or designee):

R. B. L. Date: 12/12/01

NAME OF PROGRAM AND DEGREE

BS in Mathematics

BRIEF DESCRIPTION OF PROGRAM (75 – 100 WORDS)

Mathematics can be pursued as a scholarly discipline of an especially elegant kind-a creative art form-or it can be treated as a valuable tool in an applied discipline. Our program will address both needs: it will prepare students for teaching careers, studies in graduate programs (in pure mathematics, applied mathematics, mathematics education, or the mathematical sciences) or for employment in high-tech and bio-tech industries, where mathematics-trained professionals with interdisciplinary expertise (sciences and business) are increasingly sought after. Students will be given a strong background in mathematics and statistics as well as a substantial amount of interdisciplinary applications in Physics, Computational Biochemistry, Biostatistics, Business, Computer and Information Sciences, Computer Imaging or Artificial Intelligence.

JUSTIFICATION FOR PROPOSAL (75 – 100 WORDS)

1. Mathematics major is already on the Master Plan for Fall 2003. This proposal is to accelerate offering of the BS degree in Mathematics to Fall 2002.
2. The proposed program is very interdisciplinary and supports other sciences and business program. Most of the courses offered to these majors are also a part of the proposed degree in mathematics. Having math majors in these courses will strengthen course offerings, as many of the courses assume interdisciplinary nature and teamwork.
3. Math majors entering in the Fall 2002 can plan their program in such a way that in the first year they take only courses that are already offered by mathematics or other disciplines without any sacrifice of the integrity of student' studies. Hence there is no question of additional resources (the students are going to pay their tuition, hence you may even have some surplus). Expected number of math FTES in 2002 is less than 15.
4. Proposed track for 2002 – COMP 150, 151, Math 230, Math 240, Math 300, Math 344 all offered for CS majors, plus History of Math, Ethics and advanced math based courses for sciences, business or economics. Additional upper division gen-ed courses may be taken as well.
5. Having our own math majors around in Fall 2003 will strengthen the university ability to offer Teaching credentials in Mathematics that are very sought after, as these students will serve as tutors and mentors to future math teachers.
6. The program will strengthen the university ability to offer graduate programs in sciences and business in the future.
7. Math majors (especially on teaching track) serve as tutors to under prepared students taking their math-based courses, hence having math majors around would unable the university to start Math Tutoring center. (We will need lots of homework and tutoring help for our students. Mathematics is listed as critical field (dramatically lacking qualified teachers) in California.
8. WASC accreditation will look for student support organizations, including tutoring centers.
9. In summary, there is every reason to start the program in Fall 2002.