

Mathematics - Teaching Option, M.A.

DEPARTMENT

Department of Mathematics

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THIS OPTION HAS TO BE COMPLETELY ELIMINATED

MN in Mathematics, Minor
MA in Mathematics, M.A.
MA in Mathematics - Teaching Option, M.A.
BS in Mathematics - General Math Option, B.S.
BS in Mathematics - Pure Math Option, B.S.
BS in Mathematics - Applied Math Option, B.S.
BS in Mathematics - Statistics Option, B.S.
BS in Mathematics - Teaching Option, B.S.
BS in Mathematics - Integrated Credential Option, B.S.
CRED in Single Subject Credential - Mathematics
Courses Offered

Mathematics and related subjects play important dual roles in our culture. On the one hand, mathematics is a study in its own right; on the other hand, it is an indispensable tool for expressing and understanding ideas in the sciences, engineering, and an increasing number of other fields. As a consequence, employment opportunities for mathematicians have been expanding in recent years. The courses offered by the department are designed to develop skills in, and an appreciation and understanding of, both roles.

Because there are so many different areas in which a trained mathematician can find employment or continue studies, the department offers a large number of electives within the mathematics major. By selecting appropriate courses, students have considerable flexibility to accommodate their individual interests. Students should consult with a department adviser for specific recommendations as to which electives are suited to their career paths.

Electives in applied mathematics prepare students to assume positions in technical industries or government employment, or to continue advanced studies in the applied area.

Electives in pre-college teaching in mathematics provide students with the necessary background for obtaining a California Secondary Teaching Credential in mathematics. In order to complete the credential requirements, a fifth year of education courses, classroom observation, and practice teaching is needed. At the present time, there is an increasing demand for well-trained people in this area.

Electives in pure mathematics prepare students for the pursuit of graduate studies leading to advanced degrees and employment at the college or university level, or research in industries.

Electives in statistics and probability provide a foundation for students planning to work as statisticians for industry or government agencies. They also can enhance employment opportunities in the bioscience and health-related fields. Statistics courses (in addition to MATH 75 [or 75A and B], 76, and 77) are essential for the first two Actuarial Examinations offered by the Society of Actuaries.

REQUIREMENTS

Master of Arts Degree Program Requirements

The M.A. in mathematics is designed for students who wish to study mathematics at an advanced level. Within this degree program, students may choose to complete the traditional track or the teaching option. The traditional track best satisfies the needs of students who wish to work in business or industry, teach at community college, or go on to pursue a Ph.D. in mathematics. The teaching option is designed especially for students who wish to enhance their high school mathematics teaching and/or assume a leadership role in high school mathematics education and beyond, or who wish to pursue a Ph.D. in mathematics education.