

Mathematics

College of Science and Mathematics

Department of Mathematics

Stefaan Delcroix, *Chair*

Cindy Douglas, *Administrative Support Coordinator*

Peters Business Building, Room 381

559.278.2992

www.csufresno.edu/math/

B.A. in Mathematics

M.A. in Mathematics

Option: Teaching

Minor in Mathematics

Single Subject Teaching Credential

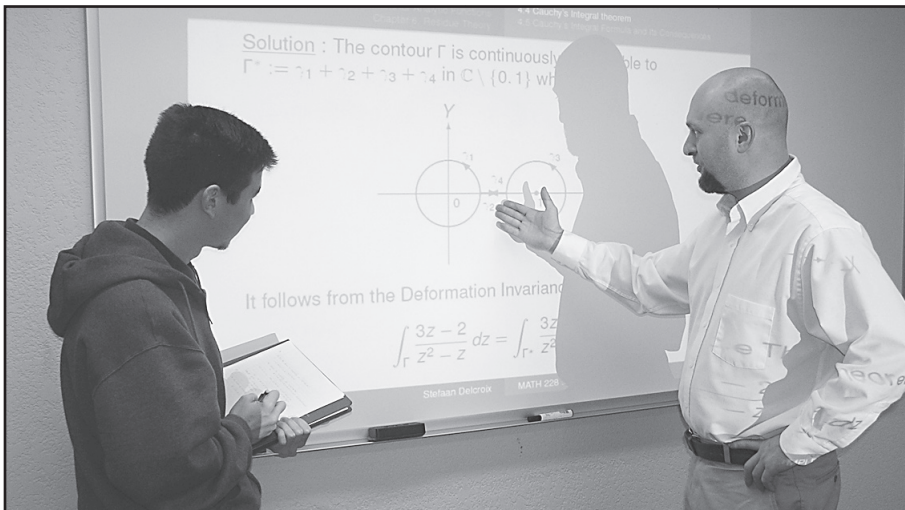
Mathematics

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 Single Subject 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 industry.

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 MATH 75A and 75B], 76, and 77) are essential for the first two Actuarial Examinations offered by the Society of Actuaries.

Faculty

Stefaan Delcroix, *Chair*

Doreen De Leon, *Graduate Coordinator*

Undergraduate Advisers:

All full-time faculty

Credential Advisers: Agnes Tuska,

T. Rajee Amarasinghe, Lance Burger

Carmen Caprau

Larry W. Cusick

Comlan de Souza

Della C. Duncan

Tamas Forgacs

Ernesto Franco

Katherine S. Kelm

Maria Nogin

Adnan Sabuwala

Peter Tannenbaum

Oscar Vega

Ke Wu

Lecturers: Andrey Babichev, Travis Kelm, Paul Kryder, Robert Musselman, Bill Regonini

Bachelor of Arts Degree Requirements

Mathematics Major

The requirement for entrance to the major and minor programs is completion of two years of algebra as well as courses in geometry and trigonometry, or a sequence of courses containing their equivalents, such as MATH 4R and 5.

It is strongly recommended that such study be completed before entrance to the university.

Total Course Requirements for the Bachelor's Degree: 120 units. See *Baccalaureate Degree Requirements* for complete details on general degree requirements. A minimum of 40 units must be upper division, including those required for the major, General Education, and upper-division writing skills.

Units

Major requirements 42-48

Core curriculum(30-31)

MATH 75 (or 75A and B),
76, 77 (12)

MATH 111 (3)

MATH 151, 152 (8)

MATH 171 (4)

MATH 128 or 165

or 172.....(3-4)

Elective curriculum(12-16)

Four mathematics courses, upper-division or MATH 81, exclud-