

Science and Math — Interdisciplinary

College of Science and Mathematics

Kin-Ping Wong, *Dean*

Science Building, Room 136

(559) 278-3936

B.A. in Natural Sciences

Biotechnology Certificate

Science and Mathematics

The goal of the College of Science and Mathematics is to provide professional training at the undergraduate and graduate levels. To achieve this goal, our programs of study serve as foundations for careers in science and mathematics. They provide professional training in preparation for careers in medicine, dentistry, pharmacy, veterinary medicine, and other professions.

The college consists of the departments of Biology, Chemistry, Earth and Environmental Science, Mathematics, Physics, and Psychology. Degree programs are listed separately. The college provides study for students in the areas of biology, chemistry, geology and environmental science, mathematics, physics, and psychology by offering courses in the majors; support courses for non-science majors such as agriculture, engineering, and the health professions; and courses for the general education of all university students.

The college requires faculty members to possess the appropriate terminal degree recognized in their discipline. The college has 90 permanent faculty members; all hold the doctoral degree in their discipline. Doctorates held by faculty were granted by some of the most prestigious universities in the nation and abroad. Furthermore, students and faculty members conduct research and scholastic activities in their academic areas as well as solve applied scientific problems of the region. This research activity is carried out among campus scientists along with investigators at other regional research centers.

The College of Science and Mathematics also is involved with the school systems in science/mathematics teacher education. Important emphasis is placed on the recruitment, retention, and education of underrepresented minorities and females in science and mathematics majors.

The College of Science and Mathematics and the United States Department of Agriculture (USDA) — Agricultural Research Services (ARS) have a cooperative agree-

ment to service and promote the Natural Sciences Scholars Program (NSSP). The NSSP provides scholarships and research experiences to encourage minority and disadvantaged students to enter USDA research related professions.

The USDA Forest Service Partnership is designed to bring together existing and new community resources to increase college enrollment and graduation of Hispanics and other minority and disadvantaged students in natural resources and related fields.

Bachelor of Science degree in Environmental Sciences*

This special interdisciplinary program leads to a B.S. in Environmental Sciences jointly conferred by California State University, Fresno and the UC, Riverside. Qualified students admitted into this program are concurrently registered at both universities but pay student fees *only* to the campus where they are in residence. There are minimum residence requirements by both universities. Students can take courses at both campuses in person or through distance learning. The B.S. in Environmental Sciences has three degree options: (1) Earth Sciences, (2) Life Science, and (3) Behavioral, Policy, and Health Sciences. The curriculum is designed to provide an interdisciplinary education in life, physical, or social sciences directed towards the understanding and the solution of today's environmental problems. For further information call Dr. John Suen, Earth and Environmental Sciences Department, (559) 278-7888 or (559) 278-3086.

Math and Science Teacher Education

The college offers baccalaureate degree programs in mathematics and natural science that serve as waiver programs leading to the Single Subject Teaching Credential in Mathematics and Science. In science, a student can select the Single Subject Teaching Credential with an emphasis in Biology, Chemistry, Earth Science, or Physics. For more information, call Agnes Tuska (Math Education) at (559) 278-2992 or Dave Andrews (Science Education) at (559) 278-2001.

Humans and the Natural Environment (HNE) (18-unit thematic cluster)

A cluster of intensive field courses is presented at the introductory level. Concurrent registration in the four courses listed in this section is required. Fifteen of the 18

units of credit are applied to General Education requirements. This course of study (fall semester only) involves approximately one month of instruction in various field locations with significant time in several of the locations. A special fee of \$300 is charged for transportation and food on field trips. For further information, contact the dean's office at (559) 278-3936.

BIOL 15 An Ecological Approach to Life Science (5)

GEOL 15 The Earth and Its History (5)

N SCI 15 Environmental Science (3)

S SCI 15 Humans in the Natural Environment (5)

Biotechnology Certificate Program

The college offers a one-year postbaccalaureate Certification of Advanced Study in Biotechnology. This intensive program of study emphasizes molecular biology and a wide range of laboratory skills at the forefront of modern biotechnology. The certificate program can lead to potential careers in expanding fields such as: drug and hormone production in the pharmaceutical industry, monoclonal antibody production for medical diagnostics, crop improvement, industrial bioprocessing, and medical research. The program also provides a strong background for advanced studies in biochemistry, molecular biology, and agricultural biotechnology. For further information, call Howard Ono (Chemistry) at (559) 278-2103 or Shirley Kovacs (Biology) at (559) 278-2001.

Marine Science

The college offers a Master of Science degree in Marine Science in cooperation with Moss Landing Marine Laboratories. The program at Moss Landing provides extensive field and laboratory work for advanced study to prepare students for careers as marine specialists, scientists, and teachers. For further information, call the Biology Department at (559) 278-2001.

South Pacific Semester

Relying on the uniqueness of New Zealand and Australia, the college offers an intensive program of study during alternate spring semesters in biology and geology along with other disciplines such as art, business, and anthropology. Students will be required to enroll for a minimum of 15 units, most of which may be applied in satisfaction of some General Education requirements. When offered, this program, which has

*The B.S. in Environmental Sciences is pending approval.