

# COLLEGE OF SCIENCE AND ENGINEERING

## College Administrative Offices

Title	Officer	Office	Telephone
Dean	Dr. Carmen Domingo	TH 323	338-1571
Interim Associate Dean	Dr. Ron Marzke	TH 323	338-1571
Associate Dean	Dr. Uschi Simonis	TH 323	338-1571
Student Success Center	Vacant	SCI 214 & SCI 381	338-2816

## College Directory

Department/Program	Chair/Director	Office	Telephone
Biology	Dr. Laura Burrus	HH 538	338-1548
Chemistry and Biochemistry	Dr. Teaster Baird	TH 806	338-1288
Computer Science	Dr. Arno Puder	TH 907	338-2156
Earth & Climate Sciences	Dr. Petra Dekens	TH 509	338-2061
Engineering	Dr. Wenshen Pong	SCI 163	338-1228
Geography & Environment	Dr. Jerry Davis	HSS 279	338-2049
Mathematics	Dr. Serkan Hosten	TH 944	338-7723
Physics and Astronomy	Dr. Ronald Marzke	TH 334	338-1659
Psychology	Dr. Christian Wright	EP 301	338-2714

## Centers and Institutes

Center/Institute	Director/Coordinator	Office	Telephone
Center for Science and Mathematics Education	Dr. Eric Hsu	SCI 211	405-4190
Estuary and Ocean Science Center	Dr. Karina J. Nielsen	Tiburon	338-3700
Institute for Geographic Information Science	Dr. Jerry Davis	HSS 288	338-3566
Moss Landing Marine Laboratories	Dr. James Harvey	Moss Landing	(831) 771-4402
SF Bay National Estuarine Research Reserve	Dr. Michael Vasey	Tiburon	338-3707
Sierra Nevada Field Campus	J.R. Blair	TH 323	338-1571

## Degrees Offered

### Bachelor of Arts

- Biology 04011
- Chemistry 19051
- Earth Sciences 19171
- Geography 22061
- Mathematics
  - Mathematics for Liberal Arts 17011
  - Mathematics for Teaching 17011
  - Mathematics for Advanced Study 17011
- Physics 19021
  - Concentration in Astronomy 19111
- Psychology 20011

### Bachelor of Science

- Applied Mathematics 17031
- Biochemistry 04141
- Biology
  - Concentrations in:
    - Botany 04021
    - Cell and Molecular Biology 04171
    - Ecology 04201
    - Marine Biology and Limnology 04181
    - Microbiology 04111
    - Physiology 04101
    - Zoology 04071
- Chemistry 19051
- Civil Engineering 09081
- Computer Engineering 09094
- Computer Science 07011
- Earth Sciences 19171
- Electrical Engineering 09091
- Environmental Science 49011
- Mechanical Engineering 09101
- Physics 19021
  - Concentrations in:
    - Astrophysics 19111
    - Physics for Teaching 19021
- Statistics 17021

### Master of Arts

- Geography 22061
  - Concentration in Resource Management and Environmental Planning 01151
- Mathematics 17011
- Psychology
  - Concentrations in:
    - Developmental Psychology 20091
    - Mind, Brain, and Behavior 20011
    - Social, Personality, and Affective Science 20051

## Master of Science

- Biology
  - Concentrations in:
    - Cell and Molecular 04171
    - Ecology, Evolution, and Conservation Biology 04011
    - Marine Biology 04181
    - Microbiology 04111
    - Physiology and Behavioral Biology 04101
- Biomedical Science 04153
  - Concentrations in:
    - Biotechnology
    - Stem Cell Science
- Chemistry 19051
  - Concentration in: Biochemistry 19051
- Computer Science 07011
- Engineering 09011
  - Concentrations in:
    - Structural/Earthquake Engineering 09011
    - Embedded Electrical and Computer Systems 09011
    - Energy Systems 09013
- Geographic Information Science 22063
- Geosciences 19172
- Interdisciplinary Marine and Estuarine Sciences 49022
- Physics 19021
  - Concentration in Astronomy 19111
- Psychology
  - Concentrations in:
    - Clinical Psychology 20031
    - Industrial-Organizational Psychology 20081
    - School Psychology 20013
- Statistical Data Science 17021

## Certificate Program

- Certificate in Weather Study (Geoscience Department)
- Biotechnology
- Cooperative Education
- Graduate Certificate
- Genetic Engineering

## Mission

The mission of the College of Science and Engineering at San Francisco State University is to provide an encouraging environment to develop the intellectual capacity, critical thinking, creativity, and problem-solving ability of its students so that they may become honorable, contributing, and forward-thinking members of the science and engineering community of the San Francisco Bay Area and beyond, to foster a conducive environment for scholarly and creative activities so that new knowledge or solutions to problems are discovered or created, and to provide science education to all students in the University so that they may be equipped to succeed in the modern world.

## Programs

The College of Science and Engineering is committed to providing superior scientific, engineering, and mathematical education in the context of a major urban university with a liberal arts tradition. The College offers programs at both the undergraduate and the graduate

levels in astronomy, atmospheric sciences, biology, chemistry, geology, biochemistry, computer science, physics, and mathematics through the eight departments of Biology, Chemistry and Biochemistry, Computer Science, Mathematics, Earth & Climate Sciences, Geography & Environment, Psychology, and Physics and Astronomy. Through the School of Engineering, the College offers Bachelor of Science degrees in Civil, Computer, Electrical, and Mechanical Engineering. At the graduate level, the School offers the Master of Science in Engineering. The College offers a Professional Science Master's in Biotechnology and Stem Cell Science through the Biology Department. The Professional Science Master's is an innovative degree designed to allow students to pursue advanced training in science or mathematics, while simultaneously developing workplace skills highly valued by employers. Finally, the College offers a multidisciplinary degree program in statistics drawing from courses in business, economics, and mathematics. The statistics program is listed in the Department of Mathematics.

The College provides all of its students with a current, relevant, hands-on education in science and engineering. Close interaction between student and faculty in the laboratory and field environments fosters the development in the student of the critical skills required in science and engineering: the ability for objective analysis of a problem, the ability to design and carry out critical tests, and the ability to make objective interpretations of data.

Students wishing to follow one of the major and/or minor programs in the College should meet with a faculty advisor in the appropriate department immediately after admission to the university. Science and engineering curricula are inherently sequential, so early advising and satisfaction of course prerequisites are essential to success in timely completion of program requirements.

The College operates two programs located off-site from the main campus, one on San Francisco Bay and the other in the Sierra Nevada, which provide outstanding access to locations for field-based research and instruction:

- Estuary and Ocean Science Center (EOS Center), [eoscenter.sfsu.edu](http://eoscenter.sfsu.edu)
- Sierra Nevada Field Campus, [www.sfsu.edu/~sierra/](http://www.sfsu.edu/~sierra/).

San Francisco State is also a member of a CSU Consortium of seven campuses providing San Francisco State University faculty, students, and staff access to Monterey Bay through:

- Moss Landing Marine Laboratories (MLML), [mlml.calstate.edu](http://mlml.calstate.edu). Applicants interested in the M.S. in Marine Science at MLML should submit applications to the graduate programs at San Jose State University or CSU Monterey Bay. Applicants interested in the M.S. in Interdisciplinary Marine and Estuarine Sciences (IMES) should apply through SF State. All students in the M.S. in Marine Science program based at MLML or the M.S. in IMES program based at the EOS Center may take courses at SF State, EOS Center (see below), or MLML.

## The Estuary and Ocean Science Center

Estuary and Ocean Science Center (EOS Center) supports the scientific study of the sea, enhances public engagement with marine science, and develops solutions to the environmental problems confronting coastal communities. It provides opportunities for scientific discovery, innovation, and education focused on the health and resilience of the San Francisco Estuary, the Gulf of the Farallones, and other coastal ecosystems. The EOS Center is located on the Romberg Tiburon Campus (RTC) just 11 miles north of the SF State campus in Tiburon, CA on the shore of San Francisco Bay. San Francisco Bay is part of the largest

estuary and watershed on the west coast of the United States. The region is internationally recognized as a biodiversity hotspot, hosts a diverse array of marine protected areas, and an economically important coastal and marine economy including productive fisheries, a diverse recreational and tourism sector, and a hub of technological innovation.

The EOS Center has specialized facilities for marine and estuarine research including flow-through bay water tanks and tables; a research pier and nearby moorings equipped with a variety of environmental sensors for tracking water quality, weather conditions, and underwater sounds; laboratories for elemental analysis, analysis of water samples for nutrients, and carbonate chemistry; specialized microscopes for quantifying, identifying, and visualizing plankton; a molecular genetics laboratory; a greenhouse for raising wetland plants; and a well-equipped, 38-foot research vessel (R/V Questuary) and a small boat fleet to support aquatic field research. The center also offers a motorboat operators training course and supports an active scientific diving program.

Faculty and research scientists from across the College offer courses and mentored research opportunities in marine and estuarine sciences at the EOS Center and on the main campus. The EOS Center hosts and administers the Masters of Science in Interdisciplinary Marine and Estuarine Sciences (IMES). Additional research and educational opportunities are available through the SF Bay National Estuarine Research Reserve and the Smithsonian Environmental Research Center programs based at the EOS Center. The Rosenberg Institute for Marine Biology and Environmental Sciences offers a Public Forum and weekly science seminar series based here also. See [eoscenter.sfsu.edu](http://eoscenter.sfsu.edu) for more information.