

**The Earth Sciences Department at City College of San Francisco**  
needs classes to meet our student enrollment demands.

The Earth Sciences Department at CCSF enjoys a well-deserved reputation of high standards and quality. We offer our students educational experiences that include lectures, laboratory activities, work experience, mentoring, field trips, and service learning, and professional opportunities in the programs of Geology, Paleontology, Oceanography, Geography, and GIS (Geographical Information System). Most of our classes are designed for those pursuing 4-year degrees, though they are open to and also attended by members of the community with a wide range of educational goals, including improved job performance (teachers and writers), career changes, and continued learning. We serve over 700 students per semester, in 21 class sections, with 3 full-time, and 8 part-time instructors.

Our department not only prepares students for earth-science careers, but also interacts with a large cross-section of the San Francisco community. Most of our students take our courses to satisfy the only physical science course requirement they may face in their college career. We help these students see the world in new and exciting ways, better understand their role in that world, and expand their vision of their own career potential and expectations.

To continue to offer high-quality, up-to-date, and pertinent educational experiences to the community, and to meet our current enrollment demand, we need classes. Right now all our classes preregister full. We have standing room only on day. We cannot meet our demand, especially in our most popular program, Physical Geography, which is a requirement for many local 4-year majors, from environmental science to landscape design. Hundreds of students are excluded from our programs each semester, and their degree process put on hold. **Our lab programs are the essential place where education meets explorations, and students build and develop job skills with hands-on work.** We do not have enough labs to meet our student needs. Courses we could fill with demand immediately:

- **Physical Geography** (70-student cap)
  - 2 more sections
- **Physical Geography Lab** (40-student cap)
  - 2 more sections
- **Oceanography Lab** (40-student cap)
  - 1 more section
- **Geology Lab** (40-student cap) – 1 more lab section
- **Field Classes** – (30-student cap) with real-world application
  - 2 more 1-unit field classes per semester

Each day, we witness life-changing consequences of earth-science processes (e.g., sulfide corrosion of gas lines in San Bruno by microbial sulfate reduction). Each semester we have the potential to facilitate life changes in our students (Joshua Biddle, recent U.C. Berkeley Medal of Honor winner and current U.C.S.F. medical student found his inspiration and discovered his career direction because of the experiences he received in our geology classes.) We are seeking support of the services we provide to the local and regional community through the development of partnerships, internships, scholarships, and grants.



*Image: Student-student mentoring with fossils in Paleontology Lab*

**3 full-time and 8 part-time instructors – including** U.S.G.S. geologists – one currently involved with geochemistry research, the others former researchers; industry GIS specialists – from local companies, such as P.G. & E.; geologists active as local consultants; textbook authors; previous researchers with experiences that cover the entire planet and a wide range of industry applications; graduates from U.C. Berkeley, Stanford, Santa Cruz, and Caltech.

**21 course sections currently offered per semester (all full within a few weeks of registration opening):**

**Geology/Oceanography/Paleontology**

Oceanography  
Oceanography Lab  
Paleontology  
Paleontology Lab  
Introduction to Geology  
Geology Lab  
Historical Geology  
Geology of California  
Geology of Gems  
Bay Area Geology (Field Class)  
Geology of National Parks (Field Class)  
Current Topics in Earth Sciences  
Work Experience

**Geography**

Introduction to Physical Geography  
Physical Geography Lab  
Economic Geography  
Cultural Geography  
Introduction to Geographical Information Systems (GIS)  
Intermediate Geographical Information Systems (GIS)  
Advanced Geographical Information Systems (GIS)  
Work Experience

*\*We do not teach mineralogy, petrology, or structural geology. Our students, to be successful after transferring to the 4-year colleges for their degrees, need to take Calculus, Physics, and Chemistry during their time at City College.\**

**Our department serves over 700 students per semester, in 21 class sections. Our students are a mixture of:**

- **Majors** (transferring to U.C. Berkeley – and other U.C.s in California; San Francisco State – and other C.S.U.s – State Universities in California; Mills College – and other private colleges).
- **General Education students** who are required to take one physical science lecture and one science lab for transfer to and eventual graduation from a U.C. or C.S.U. Many of these students will receive their only science class from us. We consider that a hefty responsibility and provide them with a rigorous experience.
- **Continuing education students** who come to us for life-long learning or career changes. Many of these students already have degrees – including retirees with Ph.D.s in other sciences!
- **Current workforce students who come to us for job training.** These students include industry personnel looking for certification in new technology (GIS) and secondary-school teachers looking for professional development in Earth Sciences.

**Some of our students' stories:**

- **Thomas Chupein** completed his City College experience working as a mentor in the Geography program. He transferred to U.C. Berkeley winning the prestigious national Jack Cooke Kent scholarship. He later graduated from Harvard University Kennedy School of Government and now works as a Social Policy Consultant at UNICEF Regional Office for South Asia in Nepal.
- **Matthew Gonzales** completed his City College experience working as a mentor in the Geology program. He transferred to U.C. Berkeley, graduated last year, and is currently enrolled in a Ph.D. program at Penn State University in geochemistry.
- **Russell McArthur** completed his City College experience working as a mentor in the Geology program. He transferred to U.C. Berkeley, graduated last year with a Bachelor's and Master's in geology and is currently teaching Earth Sciences in the San Francisco Bay Area.