Looking back on the 2017-2018 academic year, we find many things to celebrate. In 2016-2017, our biggest accomplishment was undoubtedly the re-affirmation of the college’s accreditation. With that behind us now, we’ve been able to focus on what we all enjoy most – teaching and supporting our students. College-wide, the biggest news this year has been the introduction of Free City, a program that provides free tuition to City College students who reside in San Francisco. The effect of this partnership with the city and county of San Francisco has been a marked increase in enrollment, with Spring 2018 showing an increase of about 15% over Spring 2017. For Earth Sciences, enrollment has mostly mirrored the campus trend, with some of our programs showing more growth, others slightly less. There’s still a ways to go to reach the new chancellor’s goal of 32,000 full-time students, but it seems we are on the right path.

In addition to more students, our department has been able to secure more units, and has expanded our offerings in two areas: Geographic Information Systems (GIS) and Environmental Sciences. This spring, for example, we offered an extra section of both the intro GIS course (GEOG 110) and environmental sciences (GEOG 31). Looking forward to Fall 2018, we are offering four sections of GIS classes: two of the intro GEOG 110 classes, as well as one each of the more advanced courses, GEOG 111, and GEOG 112. We plan to continue this pattern into the future, allowing students to complete the GIS certificate in two instead of three semesters. With respect to environmental sciences, we will continue to offer two lecture sections, and, for the
first time, will be offering the environmental sciences lab, GEOG 31L. The addition of the new lab will allow students to complete the requirements for the Associate of Science degree in environmental sciences.

Another project our department completed this year was the installation of our new weather station. Thanks to Professor Darrel Hess, and volunteer Cort Benningfield for their many hours of work setting this up. There's still a little calibration work to do, but you can now view live weather at CCSF via the web! Check out the link on our department home page at http://www.ccsf.edu/earth (see right side bar, “Weather Station Data”).

Many things to celebrate and a broad spectrum of courses to look forward to next fall. Before I step aside, though, and let our students, alumni and faculty tell their stories, I want to make sure we thank our many volunteers for their generous time and expertise. Without their help, a small department such as ours would never be so great.

Left: Fault on Devils Slide trail.

A Magnitude 10.0 Thank you to all our volunteers!

☆ Emelia Bauman – Geography tutor, S18
☆ Cort Benningfield – Everything and more...
☆ Yuet Tung Fung – Artwork for GEOL 11 lab manual
☆ Flynn Lan – Geography tutor, F17
☆ Julian Lemoine – Geography tutor, S18
☆ Sara Nelson – Oceanography lab aid, S18
☆ Vaishali Upadhyay – Geology lab aid, S18
☆ Doris Vidas – Geology tutor, S18
James E. Court Scholarship in Earth Sciences

The 2018 winner of the James E. Court scholarship in Earth Sciences goes to Doris Vidas. Congratulations Doris!

Doris Vidas

It has been an honor and an absolute pleasure working with the Earth Science department these past few semesters. I took Physical Geology in Spring 2017 and was blown away by the knowledge I accumulated. Learning how to decipher processes taking place and shaping our planet has been captivating. This semester I enrolled in Historical Geology and unraveled Earth’s evolutionary and geologic past. It has been a thrilling and enchanting journey. I also volunteered as a Physical Geology tutor, helping students address any hitches they encountered during their journey into the mysteries of the Earth Sciences.

I am an Anthropology major with a growing interest in Geology. I will be transferring to UCLA in the Fall, where I will be majoring in Anthropology with a minor in Geology. I believe adding Geology to my studies is directly contributing to my efforts in Archeology and Biological Anthropology. I will never forget my time in the Earth Science’s department at CCSF. In my experience they are the best, most organized and lovable department on campus. I would like to sincerely thank the staff and contributors for the honor of receiving the James E. Court Scholarship. It will prove invaluable in my continued studies at UCLA.
This year, we had two of our students accepted to the STEMSEAS Program, managed by Columbia University’s Lamont-Doherty Earth Observatory. STEMSEAS aims to provide ship-based, 6-10 day exploratory experiences for undergraduates from diverse backgrounds aboard NSF-funded research vessels. Students sail with experienced faculty mentors and engage in geoscience and oceanography activities. Both Gabriel Perez and Jackie Zaldana-Altamirano will be setting sail this summer from San Diego California to Newport Oregon. Sounds fun? Join our Earth Sciences club email list (see our website) to hear more about these opportunities as they come up. Jackie has already completed an internship with the Golden Gate National Recreation Area, and will start this new internship in June. If you have not met Jackie, she’s a determined, bright and inspiring woman with broad interests in environmental science and sustainability. Here’s Jackie to tell you a bit about her experiences...

Jackie Zaldana-Altamirano

This is my third semester at CCSF, pursuing an Associate’s degree in Environmental Science. I had previously attended a UC, but because I didn’t know what I wanted to study, and encountered unexpected medical issues, I was unable to keep up with coursework and had to move back to the Bay Area with my family. So far, I have taken the following courses at CCSF: Introduction to Ecology, General Psychology, Introduction to Alternative Energy, Physical Geology, Introduction to Environmental Science and Introduction to GIS. I have to admit that I associate my success as a student here at CCSF to the great professors I have encountered. Last year, Professor Canon mentioned an internship with the U.S National Park Service. I applied for it, and was awarded an intern position at their Fort Mason headquarters. This was truly an amazing experience that helped me dig my hands into our local environment, whilst learning and understanding federal laws. With the support, guidance, and resources provided by my instructors, I have been able to get a better idea of what I would like to pursue as a career. As I finish up my third semester at CCSF, I am looking forward to the STEMSEAS program which departs 2 weeks after finals. I will go on board a marine research vessel for 10 days from San Diego, CA to Newport, OR. This was another opportunity shared via an instructor at CCSF.

CCSF has provided me with more than just an education. I have shared in a much bigger experience. I can’t emphasize
enough that my educators have been some of the best I have had at the collegiate level. I appreciate that so many career opportunities have been shared with me via email or by word of mouth in class. I look forward to continuing to grow as a student at CCSF. I plan to continue my education at a 4-year college, and maybe even continue with a master's program. At the moment, my dream career would be to work in Environmental Remediation or to become an Environmental Consultant.

Alumni Updates

Ryan Caspary

I am finishing up my first year at UC Berkeley, and what a busy year it has been! My first semester was a crash course back into geology because it had been a while since I had taken my last geoscience class at CCSF. I learned a lot about geological mapping in the hills behind campus and mineralogy in our lab. I learned how to use new software like QGIS to make maps, Adobe Illustrator to make stratigraphic columns, cross sections and figures, and Jupyter Notebook to compile and present data. Now in my second semester I am learning about stratigraphy and petrology. One of my classes took a trip to Death Valley during spring break where we studied Neoproterozoic sedimentation, specifically the Sturtian “snow ball earth” event that defined the Cryogenian. We then separated into small groups where we measured a stratigraphic section and collected high resolution samples of 700,000-year-old lacustrine deposits in the Tecopa basin that contained thick layers of ash from the Yellowstone and Long Valley caldera eruptions. The ash layers showcase a suit of degrees of reworking, and siesmites, a soft sediment deformation [feature]. Our goal is to use magnetic susceptibility as a proxy for detrital input in tuffaceous strata in order to show a sequence of reworking events that took place during and after ash fall. As of right now we are still working on processing samples, writing our report and preparing for presentation.
(Left) Siesmites, (Right) Nicely persevered cross-beds and ripples. Both in the Long Valley Creek Tuff

Faculty Updates

Ian Duncan – Geography

It was a great year working with my colleagues in Earth Sciences. Student focus and engagement, and professional collaboration at CCSF are the main factors that makes me feel so fortunate to teach at CCSF.

This year I continued to teach Physical and World Regional Geography, as well as Introductory Geographic Information Systems (GIS). I also serve as the program coordinator for GIS. I was impressed by the large number of bright and talented students in all my classes.

The GIS program is going through some exiting changes! First, we started offering our introductory course at the Downtown Campus, to better serve the many professionals eager to learn about GIS. Second, in response to student demand, we have started to offer two sections of Intro. GIS every semester! We’re thrilled that the growing interest in geosciences is reflected in growing enrollment. Third, beginning next semester we will be offering the entire series of GIS certificate courses every semester!! A big thanks to Gordon Ye who has offered to teach both 111 and 112 in the fall. A major concern expressed by many of our students in GIS pertains to the ability to earn a certificate within a year. With these changes to the program we can promise students a quicker route to earning their certificate, and we can also better serve the growing needs of Bay Area employers searching for qualified GIS professionals. Another big thanks to Steven Nelson in Career Services, who has been instrumental in connecting GIS students with internships and future employers!

This summer, I will be traveling back and forth from the Bay Area to the East Coast. I am also planning to have many adventures cycling and bike camping around the Bay Area with my family. Maybe we’ll see you around!
The 2017-18 academic year has come to a close. I’ve appreciated having a full year off from working on my textbook, *McKnight’s Physical Geography: A Landscape Appreciation*. This summer, though, I begin revision planning with my Pearson editors for the 13th edition of the textbook, along with new editions of my *California Edition of McKnight’s Physical Geography* and *Physical Geography Laboratory Manual*.

This past year Nora and I enjoyed a number of great getaways. In June 2017, we made a summer trip to Maui for a week of diving and unwinding in the sun. As we have for many years, we went out with *Lahaina Divers* to the waters off Lāna’i. Outside the opening of an underwater lava tube that we had just glided through, we spotted one of the largest Frogfish we’ve ever seen—this one was bright yellow and the size of a football. Frogfish are ambush predators, waiting patiently on the reef for an unsuspecting meal to swim past their mouth.

In March 2018, we went back to Maui with our sister-in-law Cathy and nephew Dan. The Humpback Whales were still around, singing for us when we were underwater. From the dive boat we could see mothers with their newborn calves, some just a few days old.

Our best dive was out at Molokini Crater, two-and-a-half miles offshore of Maui and one of the most popular dive sites in Hawai‘i. Toward the end of our first dive—on which we had already seen sharks, eels, a stunning variety of spectacularly colored fish, and an rarely spotted Hawksbill Turtle—a Manta Ray with a 14-foot wingspan slowly swam over and around us. It was a magical experience.

Nora and I took a few short trips to work on field guide revisions for my *California Edition* textbook. In July, we went back up to Lake Tahoe to review the sequence of stops for a new field guide. In November, we traveled to the Sacramento Valley to check out conditions in two of the National Wildlife Refuges highlighted in my Central Valley field guide.
I made several solo trips as well. In early August I camped for three days along the secluded northern shore of Mono Lake. On my last night there, I watched an evening thunderstorm illuminate the mountains around the lake with lightning flashes until nearly midnight.

In late November, I spent two days (and one freezing night) traveling through the San Gabriel Mountains and the northern Mojave Desert checking my field guides.

Just before school started in January, I made my annual trip to Death Valley, much earlier in the season than I usually go. The weather was cool and cloudy much of the time, but the lack of crowds made it an especially nice time. I drove out of the valley for home in a gentle rainstorm, climbing into the rolling storm clouds that capped the Panamint Mountains just as I reached the crest of Towne Pass, one vertical mile above the basin floor.

In my spare time, I continue to build (and rebuild…) telescopes that I bring on camping trips to places with dark, clear skies. However, one of the best times I had looking up at the night sky this last year was here in the Bay Area just before dawn on January 31st, when the “Blood Moon” of a total lunar eclipse was setting over the Bay.

I hope everyone finds time this summer for friends, family and relaxation.
Faculty Updates

Katryn Wiese – Oceanography and Geology – Sabbatical Ends

Summer and Fall 2017 I continued my sabbatical, during which I worked on my Earth Rocks! Video Tutorial collection and as a Geology/Oceanography expert for Smithsonian Journeys tours. I was the expert on an 11-day tour of Iceland in September 2017 and Machu Picchu and Ecuador, including the Galápagos Islands, in November 2017. Also in the Fall, I was fortunate to have free time and space to walk alongside my mother as she succumbed to breast cancer and prepared for her death with grace and dignity (and a LOT of parties). She died just two weeks shy of her 74th birthday, and a few days before the start of Spring semester. Spring 2018 I have been back to teaching Oceanography and Geology and finishing up a college-wide software upgrade project. It’s been good to be back in the classroom with students! I return to Iceland again this summer with Smithsonian Journeys and will also join them in January 2019 on a cruise to Antarctica. In Fall – it will be my first time teaching one of our department field classes in its new format (6 hours of outside homework and ½ unit). I’m looking forward to seeing how the new format works for students.

**Sacsayhuamán, Peru**
No mortar. No metal tools. The Inca made perfect walls in intricate shapes by perfectly fitting each piece of limestone. 11/2017

**Ollantaytambo**
Ancient Inca Fortress and City in the Sacred Valley. Note the terraces on the far hillside. 11/2017

**Machu Picchu**

**Bachas Beach, Galápagos Islands**
11/2017

**Varberg, Sweden -- Amphibolite**
6/2017
Faculty Updates

Chris Lewis – Geology and Physical Science

Highlights from this past year for me began with a five-week trip to Japan, where my wife Judith Halebsky was on sabbatical. While Judy was busy working with Tokyo poets, I took time to pursue my alternate career in experimental petrology, aka, ceramics. I was able to join a studio in Tokyo run by a well-known Japanese potter, Koichi Koyama-sense and his wife, Emi. In addition to great instruction, Koyama-sense and his wife were generous enough to take me on a tour of the famous Mashiko pottery center and to see the 24th Japan Ceramic Art exhibition in Kasama.

Pictures (CCW): Climbing kiln, feldspar and clay for sale.

Along more professional lines, I kept busy in the fall with teaching an extra section of the physical science lab for the physics department. I enjoy this course because it let’s me teach classical physics, chemistry and astronomy, in addition to earth science.

In the spring, I’ve had the opportunity to teach my current favorite class, historical geology. This year, we were fortunate enough to partner with the University of California Museum of Paleontology for a field trip and lab experience for our students. Dr. Lisa White, and graduate students Larry Taylor, Sara Kahanamoku, and Alexis Williams participated from UCMP. Larry and I developed the lab in advance, and he led the group through the exercises. It was a great opportunity for our students to work with professionals as well as more advanced students at a top-level research school. We will definitely be back – we dig UCMP!

Another professional development I’ve made this semester has been gaining training as an Equal Employment Opportunity monitor for the campus. In addition to helping to facilitate fair hiring at the college, I have been learning best practices for our own future hires, as well as a
bit about economics, biology, ESL, and other fields. Creating an employment environment with a level-playing field is one way to improve on the lack of diversity in the sciences. It’s an honor to have this opportunity, in addition to serving my department as chair. Oh yes, I was also re-elected to another 3-year term this spring – Thanks everyone!

Lot’s of excitement planned for this summer, including compiling the historical geology lab and other adventures...but I’ll wait until next time to share about all that. Thanks for reading our newsletter, and safe travels this summer! CL

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**Malinda Ritts – Environmental Geology**

I had a great time teaching at CCSF for the first time during the fall semester! The semester coincided with a continuous stream of devastating natural disasters, including Hurricanes Harvey and Maria, the fires in Napa and Sonoma, fires and mudslides in southern California, and massive flooding in Asia. There were plenty of opportunities for discussions of these during class, and I think they really made the material we were covering seem important and relevant for all of us. I really enjoyed students’ final projects, where they focused on the environmental geology of a country of their choice. Many students chose countries of special importance to them, and it was amazing to learn about these countries from their unique perspectives. For instance, for her report about El Salvador, one of my students shared the science and her family’s experiences of the 1986 earthquake and landslide that buried what had been her family’s home in Santa Tecla.

This summer, my family has some great camping lined up, but we are staying pretty close to home. My older daughter, who is three, is showing interest in her surroundings, and is pretty sure that if she asks often enough, one of the Bay Area hills will turn out to be a volcano! I’m also looking forward to teaching Environmental Geology again next fall. I’m hoping to incorporate more hands-on activities next time around, and have a field trip to the Recology facility lined up already- I’m excited!

*Picture of our first camping trip of the season, in Half Moon Bay.*
Faculty Updates

Shirin Leclure – Environmental Geology

Fun story: I jokingly told my Historical geology class (at Skyline) that if they wanted an A they needed to get a trilobite tattoo. I even said I was joking but... one of my students came in two weeks later with a gorgeous trilobite tattoo!! (and a handmade drawing of the trilobite they used as the basis for the tattoo which now hangs in the Skyline Geology Rock Room). Thankfully that student earned an A so I didn’t have to worry about my promise.

Also, I’m going to Machu Picchu in June! So excited!

Not quite ready for press-time but many thanks and hope to catch up with you soon!

Carlos Jennings (geography), James Kuwabara (oceanography), Elizabeth Proctor (GIS, returning Fall 2018), Kirstie Stramler (oceanography and geology), Russell MacArthur (geology), and Gordon Ye (GIS)

Spring 2018 Department Hike

In fall we visited the newly opened Devils Slide trail, along with Shirin Leclure and some of her students from SFSU (see picture above). In May, we traveled east to the Black Diamond Mines regional park near Pittsburg. In addition to classic Oak savannah in the spring, we found 40 Ma petrified wood and “brassed-in” for an underground tour of the sand mine. Excellent geology from one of the Phanerozoic’s warmest and wettest times, as well as sobering history of mining in the 19th century. Join us next time!

Have a great summer and hope to see you in the Fall!