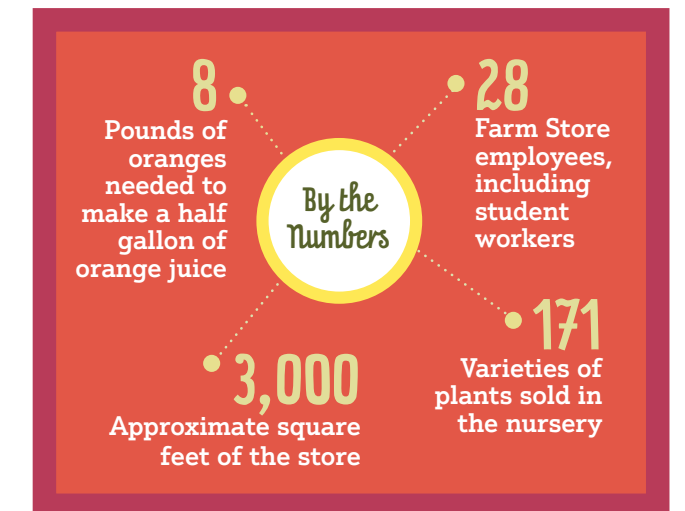




## BY THE NUMBERS

### Farm Store

Utilizing Cal Poly Pomona fields, facilities and greenhouses, students in the Don B. Huntley College of Agriculture learn how to grow and care for a variety of produce items, which are sold at The Farm Store at Kellogg Ranch. The store sells fruits and vegetables, dairy products, honey, fresh-squeezed orange juice, wine, beer and more.



## A BRIEF HISTORY

### University Library

The University Library, considered the heart of Cal Poly Pomona, started with one room, one librarian and a few hundred books in 1938 on the Voorhis campus in San Dimas. In 1959, the first library on the Pomona campus opened in Building 5 before moving into its own building.



1968

2022



#### 1968 – A New Building

The current University Library starts as a four-story structure, with floors numbered ground to third. About 1,000 students, faculty and staff move over 150,000 books, furnishings and equipment from Building 5.

#### 1988 – Additional Floors

Construction for the new fourth and fifth floors of the library commences in January. The project cost \$7.4 million, and the library is now 205,000 square feet.

#### 2006 – Major Extension

The library adds a new wing, including classrooms, additional library space, offices and a 24-hour computer lab. The extension adds 101,853 square feet.

#### 2019 – Maker Studio

The Maker Studio opens in August in collaboration with the Office of Academic Innovation. Located on the second floor, the studio gives students free access to technology such as 3D printers and a vinyl cutter.

#### 2020 – COVID-19 Pandemic

In the pivot to virtual instruction, the library offers services such as online research guides to help students start on researching a subject and a 24/7 library chat to answer research questions. The Special Collections and Archives begins collecting items, stories, photographs, books and journals related to COVID-19 for the Pomona Valley area.

## EXPERT Q & A

### What Lies Beneath

#### Artificial Reefs Support California's Marine Biodiversity

Associate Professor **Jeremy Claisse** studies the ecology of marine organisms in natural rocky reef kelp forests in California and coral reefs in Hawaii. He also studies human-built structures in the ocean that function as artificial reefs, like the submerged structures of oil platforms or harbor breakwaters.

Claisse is the recipient of a \$345,225 research grant from the **California State University Council on Ocean Affairs, Science & Technology** to help the California Department of Fish and Wildlife update its artificial reef management plans.

#### What are artificial reefs and what is their role in marine wildlife conservation and resource management?

Artificial reefs are human-built structures in the ocean, typically made of quarry rock or concrete. Although in some parts of the world they've sunk ships or train cars to build reefs. Natural rocky reefs in California have relatively high socioeconomic value because they support a substantial proportion of the recreational and commercial fishing industries. Therefore, people are interested in the possibility of either creating new artificial rocky habitat in soft-bottom areas where there isn't much



To study marine habitats, Claisse dives at Begg Rock State Marine Reserve 80 miles off the Los Angeles coast. Photo courtesy of Jonathan Williams.



natural reef or using them to restore degraded natural reefs by creating more complex, higher relief artificial reef habitat that can support more diverse and productive biological communities.

#### What do you and your team hope to discover in your study?

Dozens of artificial reefs off the southern California coast were built decades ago to enhance fishing opportunities, but they haven't been surveyed since they were built. We are going to go out to survey them with sonar to create high quality maps of the physical

habitat, and then also scuba dive to survey the fish, invertebrates and algae there. We are then going to analyze how differences in the artificial reef habitat characteristics (shapes, sizes, heights) and locations of the reefs relate to the biological communities occupying each of them. As we discover what makes a more biodiverse and productive reef, we can develop best practices for the design and construction of future projects that add artificial reef habitat along the California coast for habitat restoration, compensatory mitigation or potentially to protect coastlines from sea level rise.



## How to Design and Build an Airplane

When American aviation pioneers Orville and Wilbur Wright designed their airplane 120 years ago, they studied how birds used their wings in flight. When aerospace engineering students design an aircraft for the American Institute of Aeronautics and Astronautics' annual Design/Build/Fly college competition, their process starts with computers and design software.

1

### Define Performance Requirements

The 2023 competition calls for teams to design, build and test an aircraft to execute electronic warfare. The airplane must be fast and carry a heavy load. Students use software to analyze data, develop algorithms and create models.

2

### Design the Aircraft

Armed with the aircraft's specs, like wing area and maximum takeoff weight, it's time to design the plane's structure with computer-aided design (CAD) applications. Students use an analytics tool to predict the plane's stability in flight.

3

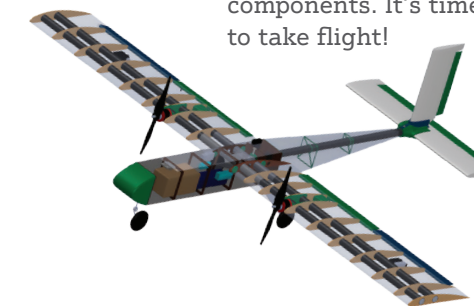
### Make a Prototype

The team builds a model using inexpensive materials such as foam board and balsa wood and then tests to see whether the aircraft performs to satisfaction.

4

### Create the Final Product

In April, the team travels to the competition in Tuscon, Arizona, with the final aircraft, which is made with fiberglass, resin and 3D-printed components. It's time to take flight!



## BRONCOS AT WORK



### Kirstie Gallacher-Ang '14, music

Music Therapist, Owner of Rubato Music Therapy

#### How would you describe your career?

I visit clients/students in their homes for 1:1 music therapy sessions and teach music lessons. Previously, I worked with adults with intellectual disabilities and led group music therapy sessions, directed ensembles, and taught music, writing and other classes. I'm working on my master's in special education.

#### What musical instruments do you play?

For music therapy, I use guitar, keyboard and lots of percussion! My primary instrument was the flute, and I'm learning the harp.

#### What is your favorite part about running your own music therapy business?

I love seeing people grow at their own pace, whether it's as momentous as a client speaking their first words or as gratifying as a student mastering a new note. The best part about owning a business is the freedom to make decisions and the ability to communicate directly with clients/students and their families.

#### How did Cal Poly Pomona prepare you for your career?

My classes prepared me to wear many hats. Arranging, conducting, and Concert Choir gave me a foundation to direct ensembles and adapt music depending on instrumentation and students' skill levels. Songwriting and recording polished my ability to help clients to express themselves. Musicianship made me a better musician. Professor [Arthur] Winer allowed me to complete my music industry studies internship with music therapists, which led to volunteer work and eventually a job!

#### What advice would you offer students?

I was not diagnosed with clinical anxiety until I was in my mid-20s. As a college student, I was constantly stressed out and cried in a professor's office more than once. If that sounds familiar, please know that it does not have to be your normal. There are resources on campus such as Student Health and Wellness Services that can support you.

## BRONCOS AT WORK



### Kateri Lirio '10, music

Music Educator and Multidisciplinary Artist

#### How would you describe your career?

My career has not been linear, but it has been steady. I grew up with both my parents listening to a lot of music in the home, and I remember feeling connected to songs that they listened to. I started playing professionally at the age of 13 as a piano accompanist for musical theaters and churches and grew up attending several concerts and shows. I wanted to learn how to make these productions happen, so I got to freelance as a production assistant at some of my favorite concerts. That led to opportunities to support video productions and other projects with non-profit organizations and corporations.

#### What musical instruments do you play?

Piano, ukulele, and I sing.

#### What is your favorite part about teaching music?

The best part of teaching music isn't the music. It's helping students find their authentic voices. I'm not a band or orchestra teacher. I'm not a choir director. My practice involves songwriting, composition and artistic expression.

#### How did Cal Poly Pomona prepare you for your career?

Cal Poly Pomona offered me a Kellogg Scholarship so that I could attend college. I felt like my professors saw me as a peer as opposed to fostering a hierarchical teacher-student relationship. This type of co-learning relationship set the stage for my master's program and changed my teaching style completely. Now, my students co-lead the curriculum I'm teaching at Angeles Workshop School.

#### What advice would you offer students?

Go for what you want and don't go at it alone. In order to do this, you have to dig deep and do a lot of inner work. It's hard work, but once you're there, you'll have a direction to keep you focused for the rest of your life.