# The SEES Informer



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The SEES program puts on the Discovery Camps during each summer. The camps are a training ground for students looking to become teachers, but it also brings in revenue to support all the great events in SEES throughout the year. The 22 Discovery camp counselors (above) hosted hundreds of children in the Science, Computer, Robotics and Imagination camps. Thank you go all the counselors for your hard work this summer.

### PROGRAM NEWS

#### **35 YEARS OF STUDENT SUCCESS SUPPORTED BY SEES**

Three and a half decades have passed since the inception of SEES. What started out as a program of dozens has blossomed into a program of 700+ students with research programs (SPIRES/LSAMP), student events (picnics, parties, trips, socials, presentations) and lots of student accomplishments. We showcase many aspects of the program in this year's newsletter once more. With CSU systemwide honors going to one of our SEES members and our Director, a record number of research scholars, over 200 SEES students on the Dean's list and an impressive number of grad school acceptances, the program continues to inspire those who see our accomplishments.

Keep In Touch: It is always great to hear what our alums are up to. Is your contact information up to date? What's new in your life? A new program acceptance, credential or degree? Please let us know.

Dr. Steve Alas, Director, alas@cpp.edu

Kristen Urias, Program Coordinator, kburias@cpp.edu

#### **Mentor-Mentee Picnic**

After a two year hiatus, the SEES Program once again held it's Mentor-Mentee picnic at Bonelli Park. The day was dedicated to welcoming the incoming first-year freshmen. Students were treated to kayaking on the lake, cycling, volleyball, tug of war, egg races and yummy food!!! It was a wonderful way to start of the new school year.



















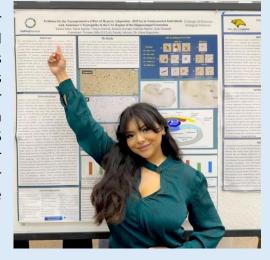


# SEES Member, Diana Aguilera-Cruz, serves on the Board of Trustees and helps lead the California State University system and its 23 campuses.



The CSU system is comprised of 23 campuses, one of which is Cal Poly Pomona. The system is run by the Chancellor and overseen by the 25member Board of Trustees. The board establishes regulations and policies that govern the entire CSU system. Its committees oversee various areas, including educational policy, finance, campus planning, and facilities. The board always has one student representative to be a voice for the 477,000 students who attend the CSU system. This year, SEES member, Diana Aguilar-Cruz, a third-year biology major, is the student who serves as a Trustee. She was nominated to apply and interviewed with the Cal State Student Association and the Governor's office. On June 1, Governor Gavin Newsom appointed her to the 25-member Board of Trustees and her two-year term began July 1. Diana Aguilar-Cruz is a first-generation college student who was born and raised in Mexico City and immigrated to the United States in 2015 as a non-English speaker. A resident of Baldwin Park, she is also the cofounder of Nezahualcoyotl, a volunteerbased organization aimed at assisting underrepresented students in achieving their

dreams of obtaining an undergraduate degree or entering the workforce. Aguilar-Cruz has conducted research on cardiovascular diseases in homeless populations, Alzheimer's disease and chemical reactions that could support sustainable chemical enterprise. Her goal is to obtain an M.D. in pediatric neurosurgery and a Ph.D. in chemistry. Diana currently serves as a SEES mentor and we are so incredibly proud of her accomplishments and of who she is. We thank her for everything she does for SEES, Cal Poly Pomona and the CSU system.



#### SEES takes its CSU-LSAMP students to the Graduate Forum

The California Forum for Diversity in Graduate Education, organized by a consortium of public and private colleges and universities across California, is specifically tailored to address the needs of advanced undergraduates from underrepresented groups seeking graduate programs. SEES took a busload of students to attend professional development workshops and to meet hundreds of representatives from universities and graduate programs from around the country at the Long Beach Convention Center.





# Research scholars take a break from projects to enjoy a day in the sun at the Pumpkin Festival



LSAMP/SPIRES research scholars took a Saturday to enjoy the Pumpkin Festival at Cal Poly Pomona. The festival is a month-long celebration during October with up to 120,000 visitors. The research scholars enjoyed choosing from over 40,000 pumpkins and enjoying the corn mazes, a sunflower field, a petting farm, vendors, student club booths, as well as food and drinks are available from various vendors.



# Wendy Fong, Chair of the CSU Board of Trustees visits LSAMP/SPIRES research scholars to impart advice and life lessons.

Every semester, LSAMP/SPIRES research scholars within the SEES program get a semester-long series of workshops on professional development, navigating the workforce and lessons in leadership. Specific workshops include Closing the Leadership Gap, Navigating the workplace, Salary negotiation, Balancing family & career, Dealing with imposter syndrome, Conflict resolution, Microaggressions & Emotional Intelligence among many others. At the end of each semester, someone in a position of leadership visits the scholars to recount the many obstacles they've dealt with while going on to a position of leadership. This past spring 2023, the scholars were treated to a meeting with the Chair of the CSU Trustees, Wendy Fong. Chair Fong is a trailblazing television producer and director with a career spanning over 40 years, known for producing and directing music specials, awards shows, sitcoms, documentaries, and live events. She made history as the first person of color and first



woman to produce the Emmy Awards and has launched productions globally, including in China, Canada, Europe, and Africa.

#### Cal Poly Pomona says good-bye to the CLA Tower

The skyline on campus was forever changed this past year as the CLA tower was demolished after being completed in 1993. After being an iconic fixture on campus and representing CPP with its unique design, the tower was taken down due to its physical integrity and due to being built on a fault line. The tower will be missed by many students, staff and alumni.



## **Christmas Party 2022!!!!**



The tradition of SEES Christmas parties, dating back to the beginning of the program's inception, returned after two years of being off due to the pandemic. There had been a lot of pent-up joy and cheer that came out during a wonderful evening of delicious food and Christmas caroling. The spirit of the program was on display as the singing filled the Kellogg House and beautiful smiles abounded from start to finish.



# Christmas Party 2022 !!!!



## Dining with Broncos - SEES & Alumni

Each year Alumni Affairs encourages CPP alumni to host current CPP students for a lunch or dinner. The purpose is to network and socialize with current and previous generations of Broncos. Dr. Steve Alas, SEES Director and CPP Class of 1994 (Biology) hosts a dinner every year with SEES students and SEES alumni.



#### **2023 SEES Award Winners**



Bethany Sesti (Hiemenz Award winner)

Bethany's journey and aspirations are to pursue a career in microbiology. Her ultimate goal is to become a microbial scientist, focusing on parasitology, immunology, and infectious diseases. She performs reseach in Dr. Frances Mercer's lab, which honed their scientific, professional, and technical skills. Participation in programs like CSU-LSAMP, SEES, and PolyTransfer has provided her leadership opportunities, mentorship roles, and professional development. These programs have fostered her confidence and prepared her for graduate studies and a STEM career. Grateful for the support and experiences gained, Bethany has given research presentations, received academic honors, and been acceptance into prestigious summer research programs, attributing much of her success to the support from SEES.



Olivia Carrillo (Burke Award winner)

Olivia has an inspiring journey from growing up in a singleparent household with limited resources and college guidance to pursuing a degree in biology at Cal Poly Pomona. Despite financial and personal hardships, including family health issues, Olivia found stability and purpose through the SEES program, which provided mentorship, academic resources, and research opportunities. Involvement in SEES allowed her to participate in events, serve as being a mentor, and conducting undergraduate research as an NSF SPIRES scholar, culminating in a passion for biomedical research and immune-oncology. Driven by her experiences and resilience, Olivia aspires to pursue a PhD and contribute to translational cancer research, aiming to make a meaningful impact in the field.



Hunter Seropian (Burke Award winner)

Hunter, a senior majoring in Physics, has had a journey of resilience, academic excellence, and community service. As a Mexican American and Armenian, he draws inspiration from his cultural roots and aims to become a researcher and lecturer in physics. He has conducted theoretical research on black holes, participated in the CSU-LSAMP Scholars program, and earned a prestigious NSF IRES Grant for an internship at CERN with the LHC ATLAS Collaboration. Despite personal family losses, pandemic-related challenges, and financial obstacles, Hunter has persevered, excelling academically and serving as a SEES mentor and workshop facilitator for calculus. He seeks to further his career and contribute meaningfully to the scientific community as a researcher and educator.

### SEES/LSAMP Dinner & Awards Reception



For the first time since pre-pandemic, we once again had our awards ceremony to honor outstanding students within the programs and to acknowledge their great contributions to both SEES, CSU-LSAMP and to Cal Poly Pomona. Awardees from both 2021-2022 and 2022-2023 were honored on this special evening.





# SEES Director wins the California State University system's highest award

[Printed from the CSU program for the 2023 Wang Excellence Award]

A tumor immunologist with expertise in genetics and DNA repair and a former research fellow at City of Hope National Medical Center, Dr. Steve Alas' impact on human lives extends far beyond his research lab. The veteran biologist has provided extraordinary service and opportunities to thousands of students at his alma mater, Cal Poly Pomona, while diversifying the STEM fields and connecting California's industries with invaluable untapped talent.

Dr. Alas first joined the university as an assistant professor in 2005. Today, as director of Cal Poly Pomona's

"THE LOVE I FEEL FOR MY STUDENTS COMPELS ME TO WORK AS HARD AS I CAN TO FACILITATE THEIR SUCCESS, IN THE SAME WAY MY MENTORS DID FOR ME."

Science Educational Enhancement Services (SEES), he works tirelessly to eliminate barriers for underrepresented and first-generation students in the fields of science and engineering, serving more than 700 students each year. While establishing a community of peers, SEES provides students with professional development, peer mentoring, academic support, referrals to fellowships and scholarships, and summer orientation for incoming freshmen, among many other services. His efforts have helped narrow the graduation gap for participating underrepresented students from 17.6 percent to 3.9 percent.

Recruiting young scientists, Dr. Alas has established summer Discovery Camps for elementary to high school students from neighboring school districts, which also provide teaching opportunities for CPP students. To support retention and success, Dr. Alas created a multifaceted onboarding "STEMpire" experience for first-year science and engineering students, including advising for at-risk students. And for the past decade, he has run the CSU Louis Stokes Alliance for Minority Participation (CSU-LSAMP) program, which provides professional development, research fellowships, conference travel and financial support to underserved students pursuing graduate degrees.

Dr. Alas has secured more than \$2.5 million in federal grants to propel his students' success. Among many other accomplishments, he was the principal investigator for a National Science Foundation (NSF) grant to establish Cal Poly Pomona's Biological Training in Education and Research (BioTlER) program in 2013 to support



masters students pursuing STEM careers. Most recently, he acquired a \$1 million NSF grant entitled SPIRES (Scholars Program in Research, Education and Science) to engage underrepresented scholars in the STEM fields through fellowships, career training and workplace psychology workshops.

Described by President Soraya Coley as "the epitome of a teacher-scholar-mentor-leader," Dr. Alas has received the Provost's Award for Excellence in Service, as well as the CSU Faculty Innovation and Leadership Award (FILA). He holds a bachelor's degree in biological sciences from Cal Poly Pomona and a Ph.D. in microbiology and immunology from UCLA.













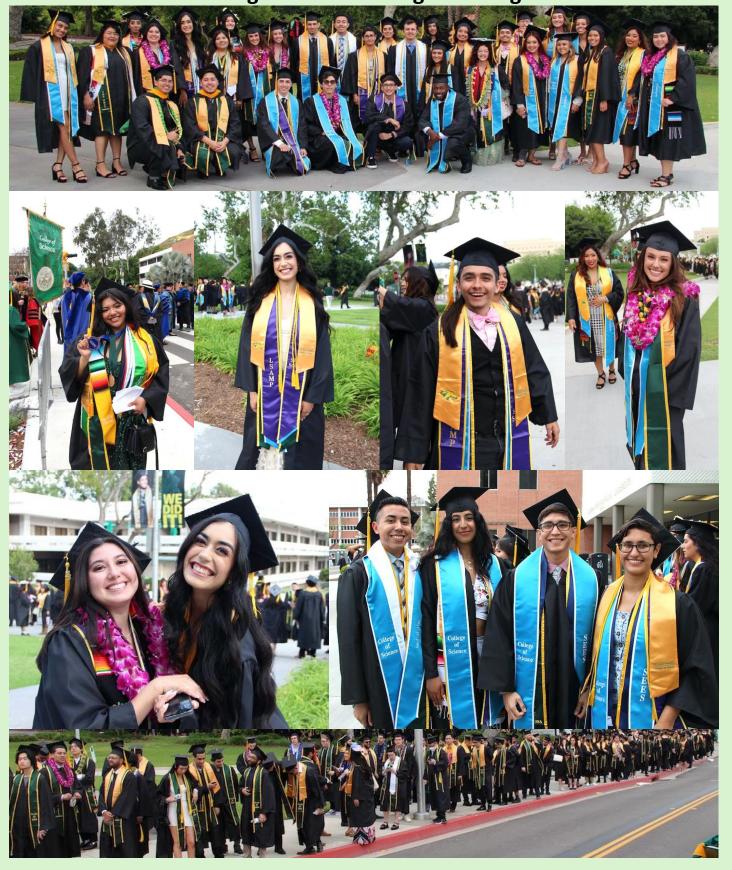
### **Annual College of Science Research Symposium**

The Annual College of Science Research Symposium, held each April at Cal Poly Pomona, showcases the work of CPP students in the STEM fields. This event provides hundreds of undergraduate and graduate students with the opportunity to present their research findings to the broader community. It serves as an excellent platform for the STEM majors at CPP to engage with students, faculty & staff and showcase their thought-provoking questions and their challenging scientific problems. The symposium features poster presentations across diverse fields, including biology, chemistry, computer science, engineering, geology, kinesiology, mathematics, physics, and agriculture. Dozens of SEES & LSAMP students presented.





Yay to the SEES graduates of 2023!! You did a wonderful job during your college career. Go do great things.





### **Student Accomplishments**

# Acceptances into Graduate/Professional Schools

- Caitlyn Cruz (SEES) Chemistry PhD degree programs at UCLA, UCI, UC Merced, School of Mines, UCR.
- Jazmin Duran (SEES) MS degree program at the University of San Francisco.
- Elvis Garcia (SEES) UC Davis PhD for Food science and technology.
- Addyson Hebbert (SEES) MS Biological Science program and Bridges to Doctorate program at CPP.
- Vivian Huynh (LSAMP) PhD program at UC Davis in Pharmacology and Toxicology.
- Ayah D. League (SEES) MS Computer Science program at the University of Southern California.
- Ria Lian (LSAMP) Chemistry PhD program at University of Utah, University of Arizona, and UC Riverside.
- George Mariscal (SEES) MS Biological Science program at Cal Poly Pomona
- Manuel Michel (SEES) Master's degree program at University of California Irvine for Biotechnology and University of California Riverside for bioengineering.
- Melissa Molina-Portillo (SEES) PhD program at the University of Washington, University of Utah, and UC Merced for Chemistry.
- Timmy Nguyen (LSAMP) PhD degree program in Chemistry at the USC, UCLA, UCSD, University of Minnesota, University of Michigan, University of Nevada, Reno, University of Washington, and Vanderbilt University.
- Isabel Romero (SEES) MS Biological Science program and Bridges to Doctorate program at CPP
- Shelby Seely (SEES) CSUF for their MS program in chemistry.

- Sarah Sharif (SEES) PhD in neuroscience program at Penn State, Rush University, and UC Riverside.
- Abigail Trujillo Chemistry PhD program at UCR
- Ivy Wang (LSAMP) PhD degree program at USC, UCLA, Univ of Washington (Seattle), Univ of Minnesota-Twin Cities, UCSD, UCSB, and UCI.

#### Acceptances into summer programs

- David Banuelos (SEES) REU at Purdue.
- Alejandra Carmona (SEES) Summer Enrichment Program at UC Davis School of Veterinary Medicine.
- Ethan Chavarin (SEES) REU at Arizona State University.
- Emiliano Gonzalez (SEES) REU at Caltech.
- George Hernandez (SEES) REUs at University of Michigan, University of Colorado Boulder, University of Maryland – Baltimore County, University of Minnesota – Twin Cities, University of Southern California, Clemson University, Michigan State University, University of Iowa, Penn State University, University of Pittsburgh – School of Medicine.
- Edwin Ly (LSAMP) summer internship at Lawrence Livermore National Laboratory.
- William Salazar (SEES) REU at the University of Wyoming
- Morgan Saunders (SEES) REU at Vilcek institute (NYU medical school)
- Hunter Seropian (SEES) REU at CERN (Switzerland).
- Jenna Surdzial (LSAMP) REU with DAAD RISE Germany to do organic chemistry research at Forschungszentrum Jülich
- Mina Thoresen (LSAMP) REUs at Caltech LIGO, CHAMP at McGill University through CalBridge and JPL SURF.
- Arianna Torres (SEES) IT internship at Vinyl Technology.