CalPoly Pomona

College of Science 2024 Fall Conference August 20



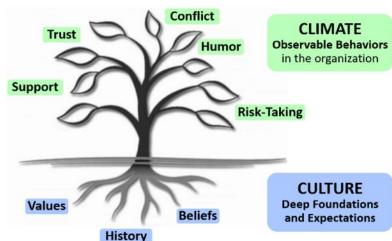




Today's Plan

- Welcome new faculty and staff
- Recognize promoted faculty and award recipients
- Highlights from college units
- Visitors: CSUEU, CFA, Provost Gomez
- CPP and College Updates

Fostering curiosity and a culture of scientific discovery



New Staff - Welcome!



Diana Saldana
Director, Academic Affairs
Business Operations
Colleges of Science & Engineering



Dianna Lazaro

Budget Analyst

Dean's Office



Virginia Manzo
Admin. Support Coord. II
Dean's Office



Sonia Gonzalez
Admin. Support Coord. I
Chemistry & Biochemistry,
Physics & Astronomy

Personnel Updates



Tatiana Vargas Hernandez Curator of Organismal Biology Inst. Support Tech. II **Biological Sciences** (Permanent position)



Cristina Jaramillo Admin. Support Coord. I **Biological Sciences** (Formerly with Dean's Office)

New Faculty - Welcome!



Nicole Reynolds
Biological Sciences



Stephanie Mora GarciaChemistry & Biochemistry



Rohit Bhide
Chemistry & Biochemistry



Iftekhar AlamGeological Sciences

New Faculty - Welcome!



Fatemeh Jamshidi Computer Science



Sai Kosaraju **Computer Science**



Brianna Posadas Computer Science

New Faculty - Welcome!



Emily Heath Mathematics & Statistics



Peter Kagey Mathematics & Statistics



Siyu Li Physics & Astronomy



Sujoy Modak Physics & Astronomy

Departmental Leadership

Interim Chair



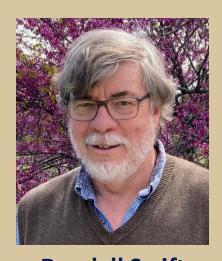
Stephen Osborn Geological Sciences

Interim Chair



Gregory Barding Kinesiology & **Health Promotion** Fall 2024

Chair



Randall Swift Mathematics & **Statistics**

Interim Chair



Matthew Povich Physics & Astronomy

Promotion and Tenure



Elizabeth Scordato Biological Sciences



Thomas Osberger Chemistry & Biochemistry



John Korah **Computer Science**



Mai Narasaki Jara Kinesiology & Health Promotion

Promotion to Professor



Gregory BardingChemistry & Biochemistry



Bohdan Schatschneider
Chemistry & Biochemistry

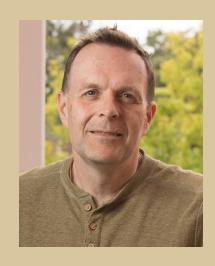


Chantal Stieber
Chemistry & Biochemistry

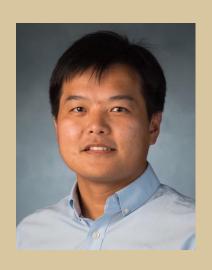


Peng SunChemistry & Biochemistry

Promotion to Professor



Peter Arensburger Biological Sciences



Yu Sun **Computer Science**



Stacy Musgrave Mathematics & Statistics

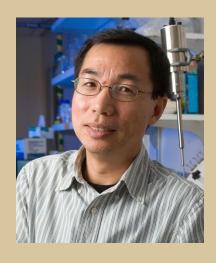
College Faculty Awards



Nicholas Van Buer
CoS Distinguished Teaching Award
Geological Sciences



Elizabeth Scordato
CoS Distinguished Teaching Award
Biological Sciences

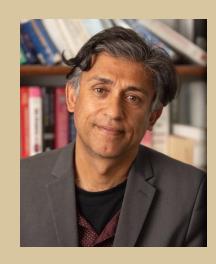


Junjun Liu
CoS Ames Distinguished
Research Award
Biological Sciences

Faculty Awards



Juanita Jellyman
Provost's Award for
Excellence in Teaching
Biological Sciences



Amar Raheja
Outstanding Faculty Advisor
Computer Science



Berit Givens
Outstanding Advising Partner
Mathematics & Statistics

Staff Awards



Kevin Chung
Instructional Support Tech.
Biological Sciences
Fall 2023



Nicolle Garcia
Admin. Support Assistant
Science Advising Center
Fall 2023



Mari Arriaza
Admin. Support Coord. II
Chemistry & Biochemistry
Spring 2024

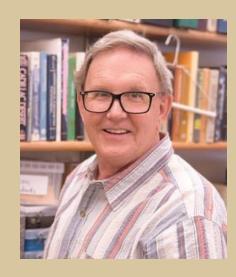


Dan Griggs
Communications
& Events Coord.
Spring 2024

Service Award for 35 years!!



Alane Daugherty
Faculty
Kinesiology & Health Promotion



Jon Nourse
Chair, retired/FERP
Geological Sciences



Pearl Viggers
IST III, retired
Biological Sciences

CPP Academic Senate







Berit Givens



Alex John



Stephen Osborn



Mohammad Husain



Alex Small



John Korah Greg Barding

The Academic Senate is the official voice of the faculty

Shared governance principles of joint decision-making and consultation between administration and faculty in a spirit of collegiality

Senate Committees

- Executive
- Academic Affairs (1)
- Academic Programs
- Budget
- Elections and Procedures (1)
- Faculty Affairs
- General Education (2)

CalPolyPomona
College of Science

Our Faculty Union Report



- Historic Strike Largest University Faculty Strike in US History
 - At least 10% raises for everyone in 1 AY.
 - SSIs coming on your hiring anniversary
 - Raised the floor for our lowest paid faculty by over 20%.
 - Increase in parental leave by 67%
 - Pathways to a full semester of fully paid leave
- Bargaining on our next contract starts THIS YEAR!
 - Look out for bargaining surveys coming to you this semester.
 - We can't win without everyone participating in our union.
- Student vaccine mandates have been waived.
 - CFA challenged in court last year and the judge ruled in our favor.
 - All campuses are still out of compliance.
 - CFA attorneys are meeting with the judge this week.

Join your union here!



CSU Employees Union Bargaining Units 2, 5, 7, 9



What is a Union?

Student Assistant Union

- New Unit 15 for Student Assistant Workers
- Largest Student Assistant Union in History!

CSUEU Tentative Agreement

- Contract Extension: 2023-2026
- Salary Reform
 - Salary Steps Fully Implemented October 1, 2025
 - Job Classification Review for 8,000+ Employees

Chapter 319 Activities

- Political Activities Committee (PAC)
 Promote state legislators who stand for our concerns and issues in Sacramento
- Rebuild Campus Relations and Monthly LMCs
- NEOs/ Recruitment: New Members & Stewards

To Join Contact Chapter 319 www.csueu.org

Science Advising Center



Diana Ascencio



Lorena Roman



Diana Curtis



Ian Carlson

2023-2024

Over 9,225 advising interactions with 3,147 unique interations

Orientation spring and summer 2024

Provided academic plans to 970 first-time students and 513 transfer/returning students

Four new advisors transitioned into Student Success Advisor role. We have a full team!

Helped to graduate over 800 students!

Held **11 campaigns** to support targeted groups. Will continue in fall.



Christian Gomez



Mario Tapia



Sheila Ingram



Nicolle Garcia

CalPolyPomona College of Science

Biological Sciences

Retirements: Frank Ewers and Pearl Viggers

New Faculty: Nicole Reynolds

New Staff: Cristina Jaramillo and Tatiana Vargas



Grants: >\$3.8M (Snyder NSF Biofoundry, Lima NIH)

Provost's Award for Excellence in Teaching: Juanita Jellyman

CoS Ames Distinguished Research Award: Junjun Liu

CoS Distinguished Teaching Award: Elizabeth Scordato

Department Teaching Excellence Award: Bharti Sharma

Department Research Excellence Award: Francie Mercer

Department Staff Excellence Award: Cristina Jaramillo

2023-24: Biology Foundations Series Coordination

2024-25: TA/Grad Student Professional Development

(Evolving the Culture of Biology)



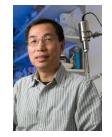




















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College of Science

Chemistry and Biochemistry

- 2 new faculty and 5 post-docs
- A new ASCI (Welcome Sonia!)
- Mari Arriaza won the College Staff Recognition Award for Spring (Go Mari!)
- New Grants/Awards

Chantal Stieber: NSF-RUI (\$298K), ARI (\$150K)

Kavli Fellow

Alex John: NSF-RUI (\$240K)

Rakesh Mogul: NASA (Research Scientist \$650K)

Quoted by CNN and featured on History Channel's UnXplained

Taylor Thane: Organic Synthesis (\$8K)

- 9 Publications
- Multiple outreach and talks, including one by Laurie Starkey at the AAUW Math and Science conference for 8th grade girls
- Student Highlights: Aaron Gaynes was RSCA Campus Winner and as an MS student received the ARI-NEXTGEN fellowship





Computer Science

- Undergraduate: 1,345 and Graduate: 130
- New Cybersecurity Minor
- 18 TT faculty (3 new) and 22 lecturers (3 new)
- Raheja (2023-24 CoS Outstanding Faculty Advisor)







New and Ongoing Grants: Chen (NSF, Google, DoE, CA Learning Lab), Ji (NSF), Husain (NSF, CyberCorps, NSA, ONR, AFRL), Korah (CA Learning Lab, USDA, ARI), Marin (NSF), Raheja (NSF), Sun (NSF-BPC), Steichen (CSU-CO), Tang (NSF-BPC, CSU-CO), and Wang (NSF, DoE)









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Geological Sciences

Drone camp in Costa Rica



New field truck and trailer



Field Methods Class



- Dr. Nourse retirement
- New geophysics faculty Dr. Iftekhar Alam
- New field truck and trailer
- Dr. Marshall led a drone camp field module in Costa Rica
- Dr. Van Buer is Field Guide Editor for GSA 24 Annual Meetings

Kinesiology and Health Promotion

- Department research activities
 - High number of students attending and presenting at conferences
- Strategic doing activities focused on belonging
 - Jackie Robinson softball game
 - Love Button event
- Exercise science laboratory update
- Launched updated graduate curriculum
- Third annual EPEW Workshop
- CCTC Accreditation



Mathematics and Statistics

New Masters of Science Program

Two MS degrees (Mathematics or Statistics and Applied Mathematics) Two emphases (pure, math ed), and Two options (applied, statistics). New program is more deliberate and concentrated course plans.

Some Faculty News

Arlo Caine's sabbatical

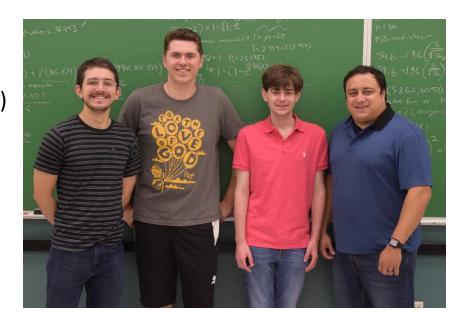
- Consulted for Kane Robotics Inc., makers of smart tools for lightweight automation in material removal processes
- Robotic arm used ICR funds from many years of grant work to purchase
 a UR5 collaborative robot arm to continue these research and learning efforts on campus

Ioana Mihaila's Fulbright

• Recipient of a Fulbright Teaching Award in Indonesia. During Spring 2024 she taught undergraduate and graduate Real Analysis at Universitas Negeri Yogyakarta and gave talks at various Indonesian universities

Some Student News

Our Putnam Exam team made an impressive showing in the last competition. They placed 132nd nationally. Clayton Coe earned 21 points. Ian Farish, and Samuel Lucas Mazariegos both scored 10.



Physics and Astronomy

- Class of 2024: 17 graduates Job placements include U. Missouri, Fermilab, Naval Air Warfare Center, MKS Grad study includes UCR (PhD), Ohio State (PhD), U. Oregon (MS), SJSU (MS), CPP Teaching Credential
- Major Faculty Transitions: 4 retirements, 2 new TT faculty, 1 new lecturer, this year TT search for experimental physicist



- ≥8 New or continuing grants; >\$700k external funding (NSF, NASA) \$16k SPICE for lecturer to redesign GE lab course
- 8 peer-reviewed **publications**, 3 with *undergraduate* lead/co-authors
- >40 undergraduate supervised research projects
- Paid summer research internships at CalTech, Harvard, U. Oregon, U. Michigan, U. Wyoming, U Madison, CPP and more.
- 16 undergraduates in 2nd CPP Astronomy Advantage Summer School
- >20 conference presentations and proceedings contributions by faculty and undergraduates, including Physics Education Research, American Astronomical Society, Association of Nepali Physics in America, Annual Conference on FYE, and American Institute of Physics



Physics and Astronomy Representation at the Spring 2024 CoS Alumni Event

CalPolyPomona

College of Science



Becki King

Dr. Janel Ortiz

Dr. Jessica Perez

Dr. Jodye Selco (FERP)

Dr. Qing Ryan (Joint appt)

Dr. Stacy Musgrave (Joint appt)

Goals

- •Partner and leader in equitable and inclusive STEM education.
- •Nurture and support STEM-related initiatives with local schools.
- •Provide support to CPP math and science students to consider K-12 teaching.
- •Improve curriculum and instruction in STEM K-16, including at CPP

Faculty
Fellows for
2024-25!

Faculty	Area of Study
Marisol Diaz	CEIS Early Childhood Studies
Yu Sun	Computer Science
Thomas Chrien	Applied Optical Engineering
Rachel Blakey	Global Change Biology, Ecology
Dan McCarthy	Biology, Science Education
Eliud (Eddie) Partida	CEIS K-12 STEM Education
Juanita Jellyman	Biology, Physiology



Science Educational Enhancement Services (SEES)

Funded 33 research scholars through NSF SPIRES & NSF LSAMP programs



LSAMP Joint
Dinner with
Fullerton and
Long Beach



- Discovery Camps 914 campers
- Eight student socials
- 22 Professional Development Workshops
- Bringing back AEWs for General Chemistry I & II
- Joint Dinner for research scholars with Fullerton, Long Beach, Dominguez Hills, Northridge & Los Angeles.



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CPP Updates

Future Career Paths



Career Center AI utilization using biginterview and vmock (next slide)

Budget Challenges

Academic Senate retreat
Professional needs allocation (\$750 per FT TT)

Emerging Technologies

Generative AI, GIS (Esri), and Cyber

Basics of generative AI

DATE: Aug 29, 2024 @12-12:50pm FORMAT: Online via ZOOM

Investigate generative AI in your discipline

DATE: Sept 12, 2024 @12-12:50pm FORMAT: Online via ZOOM

Prompt engineering is key

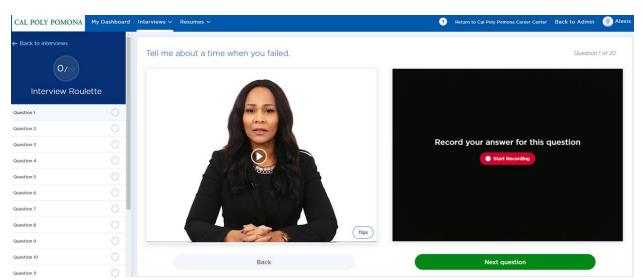
DATE: Sept 26, 2024 @12-12:50pm FORMAT: Online via ZOOM





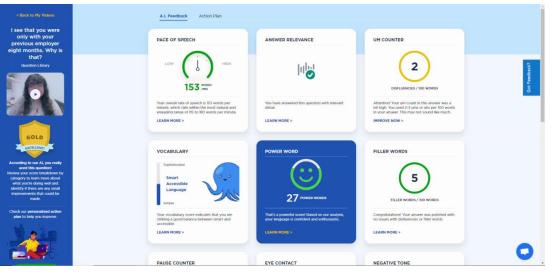
CareerCenter Al Utilization:





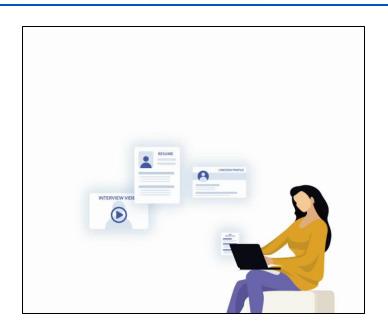
Students record video responses to 20 practice interview questions for AI feedback!

- Al tracks video response features including eye contact, filler words, answer relevance, pauses, and more!
- Based on Al grading, students receive a score and in-depth action plan for improvement



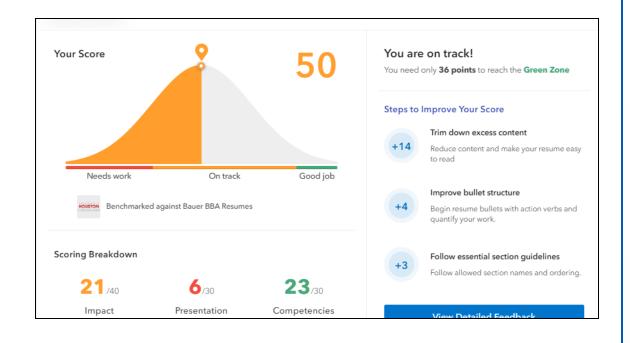
CareerCenter Al Utilization:





- Career Fit provides an analysis of qualifications and experience for a desired career track.
- Gain instant and personalized feedback through
 SMART Resume, using resume score benchmarks.

- **Elevator Pitch** provides time aligned instant feedback on body language, diction, & content.
- Aspire (LinkedIN) utilizes AI to identify profile strength, keyword optimization, and Skill Gap analysis.



College of Science

Our Vision

Fostering curiosity and a culture of scientific discovery

Our Mission

Educate, mentor, and inspire students through scientific inquiry and hands-on learning

COLLEGE OF SCIENCEStrategic Plan 2025

Our Values

CURIOSITY

INTEGRITY

COLLABORATION

INCLUSIVITY

INNOVATION



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College of Science

College Team Updates

Teaching Team (Beardsley, Perez, Ricossa, George-Williams, Sadaghiani)

> "Things I Tried" presentations at CEMaST Motivating Learners lunches

Career Readiness Team (Jellyman, Chen, Killick, Aminian, Small, Jordan)

- > Surveyed how departments connected with alumni/industry
- > CS and PHY use advisory boards to better prepare their majors for careers

Sustainable Operations Team (Ear, Ji, Osborn, Burrows)

➤ Developed info sheet for faculty funding including federal, CSU/CPP, and philanthropic support (Bronco Launchpad).

Welcome back!









