

College of Science

College of Science 2022 Fall Conference August 23



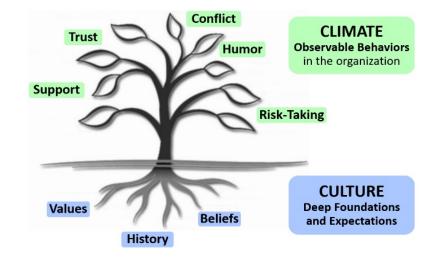
Today's Plan

- Welcome and recognition of faculty and staff
- Highlights from units
- Safer Return



COS Strategic Plan implementation and next steps

Fostering curiosity and a culture of scientific discovery



New Staff – Welcome!



Kevin Chung Instructional Support Technician II, Biological Sciences



Ashlie Garcia Admin Support Coord I Dean's Office



Diane Gonzalez Interim Director of Academic Affairs Business Operations, Colleges of Science & Engineering



Marilyn Muro Admin Support Coord I Physics & Astronomy and Chemistry & Biochemistry



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New Advising Center Staff – Welcome!



Rogelio Contreras Student Success Advisor



Erick Peraza Student Success Advisor



Jennifer Ray Graduation and Retention Specialist



Lorena Roman Student Success Advisor



Change in Staff Locations

- Advising Center Moved to Building 8, room 304
- Computer Science ASC moved to Bldg. 3, room 1645 (former advising center)
- Geological Sciences ASC moved to Bldg. 3, room 1645 (former advising center)



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WE HAVE

Personnel Updates



Paul Beardsley Director of CEMaST



Bill Burrows Director of Development



Diana Ascencio Advising Center Coordinator



Erin Questad Chair, Biological Sciences



Gregory Barding Chair, Chemistry & Biochemistry



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Faculty Fellows (2022-23)

Academic Programs



Stephen Osborn Geological Sciences

Faculty Recruitment & Development



Homeyra Sadaghiani Physics & Astronomy

Research



Matthew Povich Physics & Astronomy



New Faculty – Welcome!



Rachel Blakey Biological Sciences



Tatiane Soares de Lima Biological Sciences



Taylor Thane Chemistry & Biochemistry



Yunsheng Wang Computer Science



He Jiang Mathematics & Statistics



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Mingyan (Anna) Xiao Computer Science



Gyasmine George-Williams Kinesiology & Health Promotion



Amelia Chloe Simpson Kinesiology & Health Promotion

Promotion and Tenure



Andrea Bonisoli Alquati Biological Sciences



Frances Mercer Biological Sciences



Jessica Perez CEMaST



Abdelfattah Amamra Computer Science



Hao Ji Computer Science



Ben Steichen Computer Science



Promotion and Tenure



Zakkoyya Lewis-Trammell Kinesiology & Health Promotion



Jillian Cannons Mathematics & Statistics



Briana Foster-Greenwood Mathematics & Statistics



Fernando Lopez Garcia Mathematics & Statistics



Ivan Ventura Mathematics & Statistics



Promotion to Professor



Erin Questad Biological Sciences



Andrew Steele Biological Sciences



Tinting Chen Computer Science



Andrea Metzker Kinesiology & Health Promotion



Stacy Brown Mathematics & Statistics



Matthew Povich Physics & Astronomy



Faculty Awards



Samir Anz 2022 Outstanding Faculty Advisor of the Year Award Chemistry & Biochemistry



Arlo Caine 2022 College Teaching Award Mathematics & Statistics



Berit Givens Wall of COOL Award Mathematics & Statistics



Jayson Smith 2022 College Research Award Biological Sciences



Janel Ortiz Wall of COOL Award CEMaST and Biological Sciences

Congratulations!



Paul Beardsley 2022 Provost's Award for Excellence in Teaching CEMaST and Biological Sciences



2022 Staff Awards



Cindy Dang Administrative Support Coordinator II Biological Sciences, Fall 2020



Anthony Beachler Instructional Support Technician III Biological Sciences, Spring 2020

Congratulations!





CSU Employee Union Bargaining units 2, 5, 7, 9

Welcome

CSUEU Bargaining

- GSI 7% July 2022
- \$3,500 one-time bonus
- Salary reopener June 2023
- Salary steps survey continue to work on implementation

Remote Work

- -continue Temporary Remote Schedule based on operational needs
- -Telecommute Policy rollout soon



Hector M Maciel CSUEU Chapter President

Questions? If you have question about work, workload, Job description ... please contact a steward, unit rep, or myself.

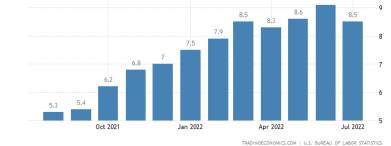
CFA Report



- You already know: contract through 2024 was ratified in Spring
 - Bread and butter
 - 4% GSI (+ SSI + PPI + service award) for 2021
 - 3% (only!!!) for 2022 (see below); these start in July will probably appear on Oct. checks
 - TBD% (+ SSI) for 2023
- Statehouse shenanigans: "11th-hour" reduction of CSU unallocated funding by \$100M means CSU funding falls below level necessary for 4% instead of 3%.

• Compare:

- Inflation outpaces pay increases
- UC faculty raises ~4% in 2021 and ~5% in 2022
- Upcoming:



- <u>Become a member</u>, so you can vote on things (<u>https://www.calfac.org/join-cfa</u>).
- <u>Get involved</u> in local chapter; there are some ongoing conversations about parental leave, ARSJ efforts, lecturer issues, etc.
- Come to our general-membership meeting in mid October.

Advising Center

By the numbers

- 2021-2022 academic year: Had over <u>4,000 advising interactions</u> with students via email, face-to-face, zoom, phone. (>1,000 hours)
- Spring 2022/Summer 2022 Reviewed records of approximately <u>1,080 incoming</u> <u>students</u> and provided degree progress information to departments

Accomplishments

- <u>4 new advisors</u> transitioned into Student Success Advisors
- 1 advisor transitioned into the Coordinator role
- 2 advisors transitioned into an MPP role
- Helped in the process to graduate more than 900 students
- Held <u>9 campaigns</u> to provide additional support to students on low academic standing or in need of early support efforts

Biological Sciences

- New faculty! Rachel Blakey & Tatiane Soares de Lima
- >30 peer reviewed papers
- Grants: Jason Ear (NIH), Jeremy Claisse (COAST) + others
- Provost Award for Excellence in Teaching: Paul Beardsley
- Ralph W. Ames Distinguished <u>Research Award</u>: Jason Smith
- College of Science <u>Staff Award</u>: Anthony Beachler and Cindy Dang
- Thank you <u>Ángel Valdés</u>!









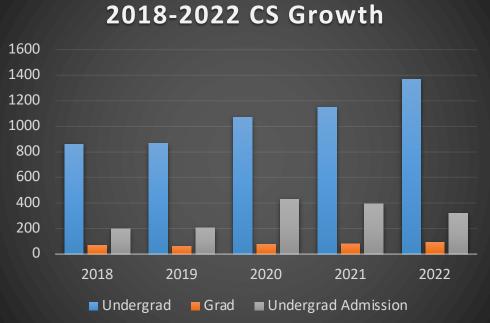




Chemistry and Biochemistry

- Welcomed a new ASCI Marilynn Muro
- Welcome to our new Asst. Professor, Taylor Thane (Organic Chemistry)
- 6 new external grant funding for \$659,000
 One of those a Center Grant: Center for Closing the Carbon Cycle (C4)
- 3 new internal grant funding for \$181,000
- 12 publications
- Over 40 presentations by faculty and students at both regional and national conferences
- Fully flipped Organic Chemistry 1 and 2
- Created digital repositories for Organic Chemistry, Analytical Chemistry, and Chemistry Research

Computer Science



Yes, we just moved!



Congratulations to Drs. Chen, Amamra, Ji, Steichen

Research Endeavors

- NSF REU Big Data & Security & DoE STARS UG research Chen
- Cyber Training for Navy ROTC Husain/Chen
- NSF Big Data, NSA GenCyber K-12, and Air Force JROTC Cyber Training – Husain
- NASA HPC for Flight control Ji
- USDA Climate Change to help Farmers Korah
- ARI Unmanned System for Agriculture Raheja
- NSF REU Unmanned Technologies Raheja/Tang
- **Boeing Indoor Positioning Tang/Raheja/Sun**
- Northrop Grumman Unmanned Systems Tang
- NSF BPC Alliance Curriculum Dev. / Social Impacts Sun/Tang
- CSU Water Resource Policy Visual Platform Steichen
- **NSF RUI** AI Inference for Driver Assistance Wang

(19) high school teachers completed their CS supplementary authorization requirements with 1 year of specially designed CS courses for teachers in collaboration with CEMaST

Geological Sciences

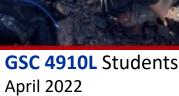
Back to In-Person Teaching



GSC 4910L Non-Virtual Outdoor Lab: Aug 2021







Research Endeavors



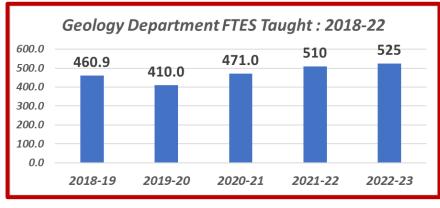
Melting rocks to make glass beads for XRF analysis



Nick Van Buer back from Sabbatical (Bryan Murray on Sabbatical Spring 2023)

- UAV grant equipment is delivered
- MS students are graduating

Enrollment Growth



Job Placement of Geology Alumni



The Mining industry is booming!! We are happy for our gainfully employed graduates in many fields!!

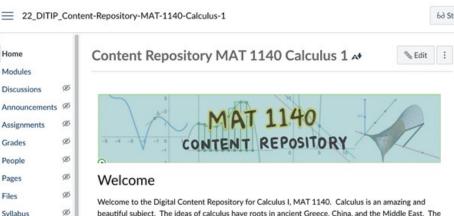
Kinesiology and Health Promotion

- Implementation of <u>strategic doing</u>
 - Staff award
 - Launch of our diversity, equity and inclusion committee
 - Speaker series
- Select grant activities
 - Two SPICE grants (funded)
 - One SIRG grant (funded)
 - One NIH grant submitted
- Exercise science <u>laboratory</u> update
- Implementation of <u>undergraduate</u> <u>curriculum</u> redesign (Fall 2022)
- Challenge course and MDC re-opening
- Elementary PE Workshop in July



Mathematics and Statistics

- <u>BAMM! grant</u> continues to provide scholarships and mentoring for MS students, to diversify the pipeline into Math PhD programs.
- Major revisions to graduate program, with new proposal being submitted this year
- <u>Digital Content Repositories</u> for 6 new courses
- <u>Program Review</u> of both BS and MS programs
- New Faculty Dr. He Jiang
- Promotions and tenure
 - Stacy Brown
 - Jill Cannons
 - Briana Foster-Greenwood
 - Fernando Lopez Garcia
 - Ivan Ventura



Welcome to the Digital Content Repository for Calculus I, MAT 1140. Calculus is an amazing and beautiful subject. The ideas of calculus have roots in ancient Greece, China, and the Middle East. The ideas grew over time and were finally brought to full fruition by Isaac Newton and Gottfried Leibniz in the 17th century. Calculus is concerned with the mathematics of change -- whenever you have two quantities that change over time in a related way, you have an opportunity to do some calculus. In this first term, you are introduced to the big ideas of limits, derivatives, and integrals. You will see applications such as graphing, distance and motion, related rates, optimization, areas, and volumes.

What is the Digital Content Repository?

This Digital Content Repository will supplement your regular calculus course. The repository contains



CalPoly

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Course

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Inbox

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History

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Outcomes

Rubrics

Quizzes

BigBlueButton

Collaborations

New Analytics

Physics and Astronomy

<u>Grants</u>

6 externally-funded grants involving 5 faculty!

Teaching

In final stages of upgrading 3-2011 to be a computational teaching lab!

Industry and Alumni

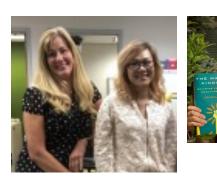
- 2022 College of Science Research Symposium and Alumni Reunion
 - Plan to make it an annual tradition!
 - Over 30 Physics Alumni
- 10th Annual Alumni Career Panel
- 1st annual Industry Advisory Board meeting



Center for Excellence in Math and Science Teaching (CEMaST)

- Finishing new strategic plan with revitalized Faculty Fellow program
- Strong push to recruit STEM teachers
- <u>Becki King</u> rules! Supported Chemistry and Cal Math Project
- Mai Tran is also now supporting INVESTS NSF grant
- <u>Jessica Perez</u>, science and engineering educator earns early Tenure and Promotion
- Janel Ortiz wins Wall of COOL award
- <u>Stacy Musgrave & Qing Ryan</u> are back from successful sabbaticals
- <u>Laurie Riggs</u> is in the FERP program and teaching for math spring semester. We miss her dearly!
- <u>Jodye Selco</u> is in year 2 of FERP and teaching for chemistry. Put together 3 Digital Content Libraries













Science Educational Enhancement Services (SEES)

- <u>Discovery Camps</u> 842 campers
- <u>NSF SPIRES & NSF LSAMP</u> programs Worksite visits @ Caltech, UCLA, CA Dept. of Toxic Substances Control, CA Academy of Sciences, UCSD, USC, Scripps, others
- Year-long Professional Development Workshop series & President Coley
- <u>Catalina</u> Excursion
- 15 student members accepted to <u>PhD/MS</u> programs for Fall 2022







Safer Return Incident Investigation: What you need to know...

(as of 8/15/22, subject to change per public health)

- **1.** <u>**Report positive case or exposure**</u> via the <u>COVID-19 Self-Report Form</u>. Direct students or employees to do the same. Do not conduct an incident investigation or inform close contacts.
- If you <u>test positive</u>, you cannot come to campus for a minimum of 5 days.
 The earliest you can return is on day 6,*** but you must wear a mask for 10 days.
- 3. If you had a close contact exposure and have no symptoms,

you can come to campus but you must <u>test within 3-5 days</u> and wear a <u>mask for 10 days</u>. If you are unable to test, you cannot come to campus for 10 days.* If you have a positive test result, report it via the <u>COVID-19 Self-Report Form</u>

- 4. If you are <u>experiencing symptoms</u>, you cannot come to campus <u>until you have received a</u> <u>negative test.</u>*** If you do not want to test, you cannot come to campus for 10 days.*
- 5. COVID-19 Supplemental <u>Paid Sick Leave</u> (SPSL) up to 80 hours is available effective Jan 1, 2022 through Sep 30, 2022 for employees unable to work due to COVID-19 related reasons.

*Considerations for individuals who have tested positive within 90 days.

**Refer to policy for information on eligibility and required test documentation.

***Must be cleared by the Safer Return Incident Investigation Team upon <u>negative test</u> and improving symptoms (including fever-free for 24 hours).

One Positive Faculty Case or Exposure with Symptoms

Temporary Changes to Course Modality (up to 1-week)

(as of 8/15/22, subject to change per public health)

Faculty member positive or experiencing symptoms

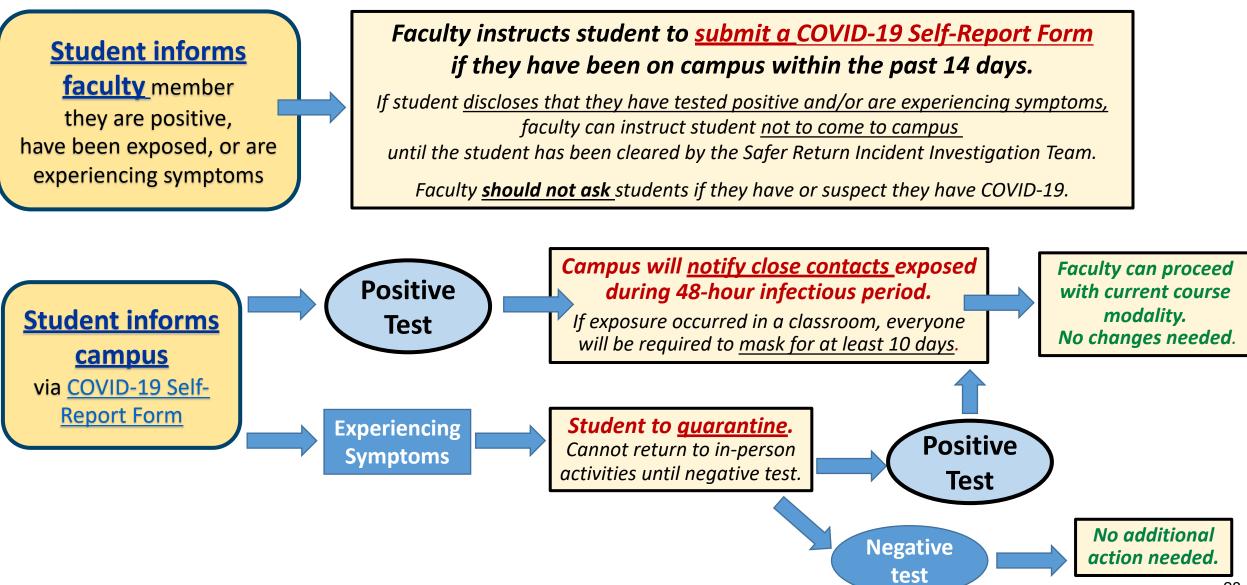
Faculty should also submit a selfreport form if they have had a close contact exposure. They can continue to come to campus but must test and wear a mask for 10 days.

Can you teach your class virtually or do you need to take sick leave? Take sick leave **Teach class virtually Inform Department Chair. Inform Department Chair Department Chair to take** if it is a change in course appropriate course of action in modality. securing a substitute or cancelling class.

Submit a <u>COVID-19 Self-Report Form</u> if you have been on campus within the past 14 days.

One Positive **<u>Student Case</u>** or Exposure

(as of 8/15/22, subject to change per public health)



College of Science

Our Vision

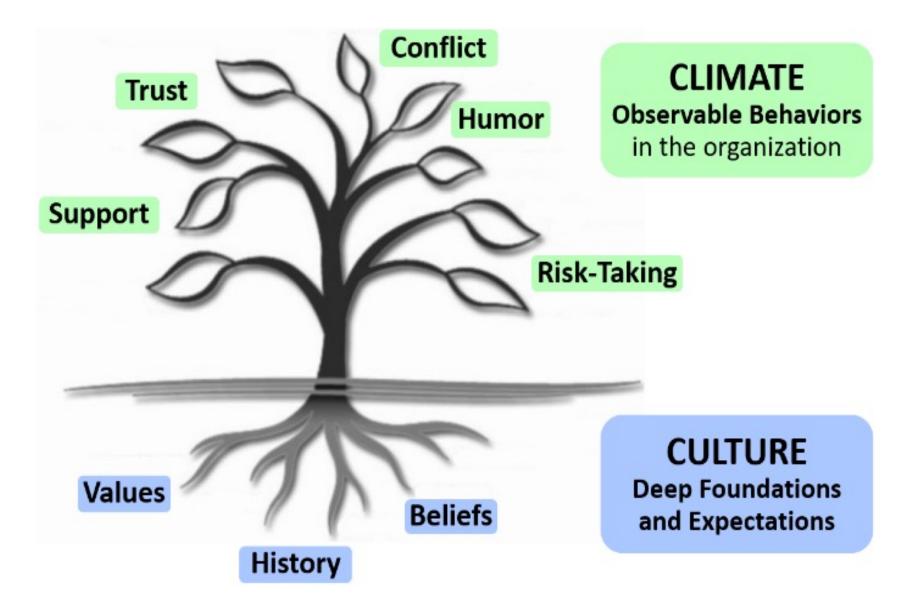
Fostering curiosity and a culture of scientific discovery

Our Mission

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

Our Values CURIOSITY INTEGRITY COLLABORATION INCLUSIVITY INNOVATION

The Courage to Practice



2021-2022 College Leadership Initiatives

<u>Speaker Series team</u> showcased excellence in research with scientists who have made their work accessible to all disciplines (virtual or hybrid)

<u>Health and Wellness team</u> hosted physical activities and connect & learn events to promote wellness and community across the college

Student Success team delivered two key products:

- A <u>STEM Success hub</u> to improve efficiency and synergy of communication about tutoring, clubs, events, and career opportunities
- Launch an <u>expanded COS Research</u> <u>Symposium</u> to include alumni connections



2022-2023 College Initiatives

- How to sustain 2021-2022 successful leadership initiatives
- Use the <u>CPP STEM Success Network</u>, an innovative collaboration across three colleges (Science, Engineering, Agriculture), to maximize student success efforts through sharing best practices for outreach, retention and graduation
- Design <u>committee for Diversity and Inclusion</u> at the college level to include all stakeholders (faculty, staff and students)

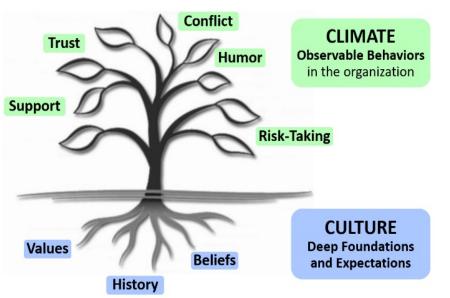


Welcome back!





The Courage to Practice



Our behaviors reflect our values.