

COALITION FOR EDUCATION & OUTREACH (CEO) @ UC BERKELEY
EVENTS (2017-2020)

2019-2020

Tuesday, Oct 1, 12-1:30 pm | *Inclusion by design: practical tips for improving STEM equity.*

This moderated panel discussion features staff, faculty, and students sharing their experiences tactics for fostering a greater sense of belonging among women and minorities across all STEM and tech fields. Each will share a story and their top three tips, followed by questions and discussion. The panel will be moderated by **Jill Finlayson**, Director of the [Women in Technology Initiative](#) (WITI) at UC. **Panelists:** **Rebekah Tang**, WITI student employee and data science rising senior; **Phillip Denny**, Director, [Big Ideas](#); **Nicole Cotton**, Ph.D. student, Organizing Committee for [Haas Othering & Belonging Conference](#), new [DeCal Course on Inclusive Pathways into Tech](#); **Chris Noble**, Assistant Director, [CalNERDS](#). Location: 290 Hearst Memorial Mining Building.

Tuesday, Nov 5, 12-1:30 pm | *Family engagement: the secret sauce for empowering kids in STEM.*

How do we help close, rather than increase, the opportunity gap in STEM with family engagement? How do we make sure that every parent feels confident and has the resources to support their child in STEM? How do we reimagine family engagement as more than a one-time, end-of-program event? Panelists will share their lessons learned, bright spots, and challenges in supporting families in STEM. **Panelists:** **Linda Kekelis**, Advisor for the Family Engagement Project at STEM Next Opportunity Fund; **Michelle Rodriguez**, Visitor and Community Experiences Director at the Lawrence Hall of Science; **Courtenay Carr Heuer**, Co-founder and Executive Director of Scientific Adventures for Girls. Location: 290 Hearst Memorial Mining Building.

Tuesday, Dec 3, 12-1:30 pm | *How to produce a podcast.*

Podcasts provide a low-cost, engaging way to communicate your science to diverse audiences. All you need to get started is a good science story and motivation. In this mini-workshop, you will learn the basics of audio podcast production, including best practices for interviewing, narration, adding music and editing with Spext.co. We'll also discuss equipment, software, and resources to get you up and running. Presenter **Vicki Hammarstedt** is the architect and director for Berkeley Advanced Media Institute, having launched the program in 2011. An entrepreneur with a passion for all things digital, Vicki has had an eclectic career as a technology teacher, the developer of a charter school, co-founder of an e-commerce company, and as the business director in the telecom industry. She currently designs and produces multimedia training programs bringing the latest technologies and innovations in storytelling to career professionals throughout the world. Location: Room 106, Upper News Room, North Gate Hall.

Tuesday, Feb 4, 12 – 1:30 pm | *CEO "Swap Meet "*

— Are you looking for a partner or collaborator for a new or ongoing project? Do you have a proposal idea you'd like feedback on, an issue or topic you'd like to brainstorm with others, or a challenge you need help with? Are you in need of a particular resource, or know about really good resources that might help others? What do you *need*? What can you *offer*? The CEO Swap Meet provides an open, non-judgmental space for discussion, sharing, and networking on these questions to help you in your work. Location: 290 Hearst Memorial Mining Building.

Tuesday, March 3, 12:00-1:30 pm | *Designing outdoor field research experience as a vehicle for inclusivity.*

Why study in the field? Why does field-based research remain at the core of many Earth and environmental science disciplines and does that expectation present a barrier to full participation? Often ingrained in the culture of field training is field culture that continues to emphasize physical ability, mental toughness, assertive behavior, and one-upmanship. Please join us for a panel discussion that will feature experienced field program directors and other professionals who will highlight the “ins and outs” of creating and managing outdoor field experiences that are engaging, inclusive, and equitable. Discussion topics will include how to design more inclusive programs, address accessibility issues, and shape field experiences to

appeal to a diversity of students from a range of majors – all of which will be applicable to those interested in supporting the improvement of learning experiences and *environments* for all students at all levels. Speakers: **Lisa White**, Director of Education and Outreach, UC Museum of Paleontology; **Alexis Williams**, UCB Earth and Planetary Science alumnus; **Jenny Mulholland-Beahrs**, Director, California Outdoor Engagement Coalition. Location: 290 Hearst Memorial Mining Building.

Tuesday, April 7, 12:00-1:30 pm | *Opportunities for engagement between UC Berkeley and community colleges to support STEM transfer students.* This forum will explore opportunities for engagement between UC Berkeley and local California Community Colleges (CCCs). For CCC students taking STEM coursework, university-sponsored opportunities such as participation in research can improve retention in a STEM major, transfer rates, 4-year graduation rates, and persistence in STEM. But CCC transfer students admitted to UC Berkeley (or any 4-year school) are often forced to quickly integrate into the campus community, and face more challenges in finding study groups, professional development opportunities, overall respect for their STEM potential, and/or opportunities to work in faculty labs, to name a few examples. Through conversation with a panel of experts, we will discuss current University/CCC collaborations that are working to improve transfer rates and the student experience, as well as identify potential new ways to increase and support the unique needs of CCC STEM transfer students. Ideally, this interactive conversation will yield new insights and strategies for transfer student support from the start of their CCC experience and through degree completion at a 4-year institution, and possibly kick-start some future collaborative efforts locally! Panelists: **Christina Tinsley**, Assistant Director, Transfer Alliance Project and Community College Transfer Services, Program Manager, NIH Bridges to Baccalaureate Program; **Angélica Garcia**, President, Berkeley City College; **Amanda Dillon**, Undergraduate Advisor, Berkeley Computing, Data Science and Society; **Jenny Le**, STEM Center Counselor, Skyline Community College. Presented via Zoom.

Tuesday, May 5, 12:00 – 1:30 pm | *Leading by example: insights from faculty who were first-gen college students.* In this panel, four UC Berkeley faculty who are the first in their families to attend college share their educational, career, and life experiences and discuss how these experiences have shaped their philosophies and approaches to teaching, research, mentoring, and campus service. These experiences provide real-world insights that can guide other faculty, administrators, staff, and students to create more inclusive and welcoming STEM environments in our labs and classrooms. Panelists: **Diana Bautista**, Professor of Molecular and Cell Biology; **G. Cristina Mora**, Associate Professor of Sociology; **Karl van Bibber**, Professor of Nuclear Engineering; **Noah Whiteman**, Associate Professor of Integrative Biology. Location: 290 Hearst Memorial Mining Building.

2018-2019

Tues, Oct 2, 12-1:30 pm | *Broadening the Engineering Talent Pool: The Experiences of First-Generation College Students in Engineering.* This panel presentation features Marvin Lopez and undergraduates from non-traditional backgrounds currently enrolled in the UC Berkeley College of Engineering. Pursuing a career in engineering is challenging for any college student, however the challenges that first-generation engineering students face can be even more pronounced. As Director of Programs in Engineering Student Services, **Marvin Lopez** oversees the very types of academic programs that he participated in as an engineering student at UCLA. Join Marvin and UC Berkeley engineering students **Miriam Almaraz**, **Daniel Santos**, and **Victor Zendejas Lopez** as they discuss the academic and cultural barriers they have faced and share how the Berkeley community can support current and future engineering students. Location: 290 Hearst Memorial Mining Building.

Tues, Nov 6, 12-1:30 pm | *What the data tell us about persistence in lower-division prerequisites for STEM majors.* Presenters: **Andrew Eppig**, Institutional Research Analyst, UC Berkeley Div. of Equity and Inclusion and **Roshni Wadhvani**, Research Associate, Public Profit. Berkeley's STEM departments have long struggled to improve persistence, particularly among

non-traditional students, including women, underrepresented minorities, students with disabilities, and students from low socioeconomic backgrounds. Previous analyses have shown that persistence gaps appear by the time students complete their lower-division course requirements, typically in their second year of study. Until recently, however, we have not known where and when these persistence gaps begin. In this presentation, Eppig and Wadhvani discuss the results of a new analysis that tracks intended majors across all STEM fields from year one through graduation, producing high-resolution metrics on student persistence across time. Their analysis highlights persistence patterns, identifies barrier courses, and pinpoints junctures where timely interventions might significantly improve the persistence of STEM majors. Location: 290 Hearst Memorial Mining Building. Location: 290 Hearst Memorial Mining Building.

Tues, Dec 4, 12-1:30 pm | Making the most of resources at the Berkeley Library: A workshop for STEM E&O professionals. In this interactive forum designed specifically for CEO members **Margaret Phillips** (Education, Gender & Women's Studies, Psychology Librarian) and **Michael Sholinbeck** (Public Health Librarian) will lead you in a hands-on exploration of the many resources available to help you do your research—including resources available to non-UCB community members. Their presentation will cover such basics as how to use the [UC Berkeley Library](#) to efficiently access millions of books and thousands of online databases, and will demonstrate how these resources in turn lead to millions of articles, online books, and other resources and tools. Going beyond the basics, they will show you how to use library resources to easily get detailed information about your community, including education, demographics, health status, and much more; how you can in seconds make a map of—for example—the number of children living in poverty by school district for any part of the United States; or how to easily track legislators' voting history and donor lists. Last, but not least, they will describe the assistance available from professional librarians who can help you navigate these myriad resources. Location: 290 Hearst Memorial Mining Building.

Tuesday, Feb 5, 12 – 1:30 pm | Evaluating the impact and outcomes of STEM programs: A common sense approach. Are your STEM programs, activities, events, courses & curricula really reaching their intended audiences? What are students and other participants actually learning from them? As science educators and outreach specialists, we strive to create high-quality STEM programs that have the greatest possible impact. In this moderated panel presentation, you will learn about the numerous available tools and resources that can help you measure and assess your results. Evaluation experts and STEM program directors will discuss how to integrate evaluation into your program design; when/how to partner with experts and when it makes sense to conduct your own evaluation; how to use evaluation results to strengthen your project outcomes; and how to communicate impact to stakeholders. Presenters: **Kalie Sacco**, Lawrence Hall of Science; **Mac Cannady**, Lawrence Hall of Science; **Teresa Barnett**, Community Resources for Science (a non-profit science education organization); **Lea Marlor**, Center for Energy Efficient Electronics Science (an NSF-funded science and technology center headquartered at UC Berkeley). Location: 290 Hearst Memorial Mining Building.

Tuesday, Mar 5, 12 – 1:30 pm | Citizen Science can be an Extraordinary Gateway to STEM Learning and Engagement! There are a number of research projects on campus that have employed, or are currently employing, the public (aka citizen scientists) to help with data collection and/or analysis. Some of these projects have been groundbreaking “first-of-a-kind” efforts, and many have been highly publicized. But are they all they could be from an education and public outreach perspective? Similarly, are other campus researchers missing opportunities to employ citizen scientists, from both research and E&O perspectives? This session will bring together a panel representing citizen science project leaders and experts, and will focus on successes, failures, and lessons learned. We'll raise questions such as How should citizen science participants be managed? and Are citizen scientists purely data collection devices or are they equal members of the research team and fellow investigators? In addition, best practices and resources in citizen science will be shared, with special attention to education and outreach considerations. Panelists: **Elizabeth Cash** ([Backyard Biodiversity Project](#)), **Emily Harris** ([BSCS Science Learning](#)), **Juan Carlos Martínez Oliveros** and **Vivian White** ([Eclipse Megamovie](#))

[Project](#)), and **Andrew Westphal** (Stardust@home). Session organizers and hosts: Dan Zevin, Teresa Barnett, and Lea Marlor. Location: 290 Hearst Memorial Mining Building.

Tuesday, Apr 2, 12 – 1:30 pm | Collaboration "Swap Meet "— Are you looking for a partner or collaborator for a new/ongoing project? Do you have a proposal idea you'd like feedback on? An issue or topic you'd like to brainstorm with others? A technical issue or a challenge you need help with? What do you need? What can you offer? The Swap Meet provides an open, non-judgmental space for discussion and networking. We hope that you will join us and come to the meeting with an idea/resource/opportunity/question/challenge you would like to share with others. Discussion facilitators: **Dan Zevin** and **Kate Spohr**. Location: 290 Hearst Memorial Mining Building.

Tuesday, May 7, 12 – 1:30 pm | Creating pathways to success for girls in STEM. Join us for a discussion with leaders of three Bay Area programs that are engaging, retaining, and empowering girls in science, technology, engineering, and mathematics (STEM). Learn about their approaches, challenges, successes, insights, and how their work fits into the broader field and society. Featured speakers and programs: **Lizzie Hager-Barnard**, Ph.D., Program Director, [Girls in Engineering](#), UC Berkeley; **Emily Pilloton**, Founder and Executive Director, Project H Design / [Girls Garage](#) and Lecturer, UC Berkeley College of Environmental Design; **Folasadé Ogunbanwo**, Math and Science Programs Coordinator, UC Berkeley Center for Educational Partnerships, Pre-College Trio Programs, including [Womyn in STEM Education \(WISE\)](#). Location: 290 Hearst Memorial Mining Building.

2017-2018

Thurs, Oct 12, noon-1:30 pm | Demographics, Persistence, and Climate for UC Berkeley STEM Undergraduates. Presenter: **Andrew Eppig**, Institutional Research Analyst, Div. of Equity and Inclusion. STEM departments are a microcosm of broader campus patterns for undergraduate representation, persistence, and climate at Berkeley. Students from marginalized communities, including women, underrepresented minorities, students with disabilities, and students from low socioeconomic backgrounds are deeply underrepresented in STEM departments compared to the rest of campus. Their underrepresentation begins when they arrive at Berkeley and becomes progressively more pronounced as fewer who intend to major in STEM declare a STEM major, and even fewer graduate with a STEM degree. Eppig examines the climate in STEM departments that contributes to the persistence gap—including non-inclusive teaching environments, implicit bias, lack of support structures—and presents new research on two long-standing programs that appear to ameliorate the persistence gap and suggest broader interventions to improve the undergraduate experience for all majors. Location: 337B Cory.

Thurs, Nov 9, noon-1:30 pm | Developing outreach activities to highlight your research. Why should science outreach be an essential component of research labs and scientist training? In this session, we focus on how to develop an outreach activity that highlights the focal research of your lab group or program. What should you consider when developing activities, and what resources are available to help you succeed? Panelists from two campus lab groups will provide insights on best practices for engaging audiences and lessons learned from their experiences. Presenters: **David Whitney**, Professor, Department of Psychology; **Brian Wang**, PhD student, Sarpong lab, Department of Chemistry; and **Traci Grzymala**, Community Resources for Science. Location: 375 LeConte.

Thurs, Dec 14, noon-1:30 pm | STEM in the Media: Insights from KQED Science and UCB Media Relations. Are you a researcher who would like to share your science with a wide audience? Or are you involved in STEM education and outreach and want to connect with the media to highlight your events? This interactive forum will feature: **Craig Rosa**, senior digital editor-KQED Science, and series producer-Deep Look; and **Bob Sanders**, manager, science communications, UC Berkeley Media Relations. Rosa and Sanders will discuss how to capture the media's attention and effectively communicate your STEM activities. Location: 375 LeConte.

Thurs, Jan 11 (2018), noon-1:30 pm | *From STEM to STEAM: Exploring E&O Opportunities with Berkeley Art Museum/Pacific Film Archive (BAMPFA)*. Featured speaker: **Lynne Kimora**, collections engagement associate and academic liaison, BAMPFA. CEO is invited to a behind-the-scenes visit to the acclaimed Berkeley Art Museum, which curates many exhibits that draw connections between art and science. BAMPFA is also deeply committed to engaging with students and the community. In this session, we will hear about their science-related programs, including a sneak preview of the Spring 2018 series on Earth, Air, Fire and Water – which will demonstrate both the aesthetic and scientific aspects of the four elements. We'll also explore ways that CEO and BAMPFA can collaborate to support our related efforts in education, outreach and diversity. Following the session, all CEO attendees are welcome to tour the museum on their own and enjoy the delicious offerings at Café Babette. Admission is free for all CEO participants who RSVP in advance. Location: BAMPFA, 2155 Center Street, Berkeley.

Thursday, Feb 8, noon-1:30 pm | *Incorporating Socio-Scientific Issues to Enhance Student Engagement and Three Dimensional Learning*. Presenter: **Maia Binding**, Curriculum Developer, Lawrence Hall of Science. This interactive workshop focuses on a model inquiry-based middle school unit on ecology developed by the Lawrence Hall of Science and the American Museum of Natural History. The unit is aligned with the Next Generation Science Standards (NGSS) and weaves in socio-scientific issues that are directly relevant to students' lives. Pilot testing shows that the unit significantly increases student interest, advances critical thinking, and sparks argument based on evidence. Workshop attendees will participate in a small-group demonstration activity showing how socio-scientific issues are used to encourage deeper engagement with STEM content. Location: 337 Cory.

Thursday, Mar 15, noon-1:30 pm | *Elevating the Priority of Science and Environmental Literacy in Schools*. Presenter: **Vanessa Lujan**, Lawrence Hall of Science. Environmental literacy provides important depth to science, math, and history/social science content, helping to illuminate connections between natural resources, climate science, geography, data science, historical societies, and economic and political realities of today. Environmental literacy is more important than ever, and is integral to successfully achieving the ambitious goals of the [Next Generation Science Standards \(NGSS\)](#), and [Common Core State Standards](#). Lujan will present the Hall's work with districts that are elevating science and environmental literacy across grade levels. In this session, participants will learn and share how stakeholders can advocate and support key district capacities in science education and environmental literacy. Location: 337 Cory.

Monday, Apr 9, noon-1:30 pm | *A Conversation with Oscar Dubón*. In this wide-ranging discussion, **Oscar Dubón, Jr.**, Berkeley's third Vice Chancellor for Equity and Inclusion, will discuss his vision and priorities for achieving greater equity and inclusion in science and engineering at UC Berkeley. Dubón, Professor of Material Science and Engineering, most recently served as the Associate Dean of Equity and Inclusion in the campus's College of Engineering and was awarded the 2016 Chancellor's Award for Advancing Institutional Excellence and Equity. In a recent interview, Dubón said equity and inclusion is "part of UC Berkeley's DNA." The session will conclude with a Q&A session. Location: 290 Hearst Memorial Mining Building.

Thurs, May 10, noon-1:30 pm | *Science through Story*. Presenter: **Sara ElShafie**, doctoral candidate, integrative biology. This hands-on workshop trains participants to share science using story techniques developed in collaboration with artists at Pixar Animation Studios. Participants will learn how to employ these techniques to enhance science teaching and reinforce learning, with tools designed to facilitate creativity and accessibility in science education and outreach. The workshop will combine demos with group discussion and hands-on story development. Location: 337B Cory, UC Berkeley campus.