

FALL 2023

Discovery Seminars

Please note that if a listed seminar does not last the full 10 weeks, the drop deadline may be sooner.

Updated 7/20/2023

First Year – Discovery Seminars (One Instructor)

INT 86EI - “SciTrek: How science works”

- **Seminar Type:** *First Year Exploration*
- **Department:** chemistry and biochemistry
- **Instructor:** norbert reich
- **Instructor Email:** reich@chem.ucsb.edu
- **Day - Time - Room:** Monday 12:00-12:50 in ILP 3316 ***This seminar will meet the first two Monday's of the quarter in ILP 3316 at UCSB, and the last two weeks of the quarter. Please note that 6 hours of this seminar will be off campus at the K-12 schools and at various times. You will sign up for the time that works best for your schedule.**
- **Enroll Code:** 58032

Course Description: Improve your ability to think critically, probably the most important skill you will be hired for in the future, whatever your degree is in. This course is a blend of instruction from Biochemistry Professor Norbert Reich, who works on drug development for cancer and antibiotics, through reading and discussing papers on critical thinking, and your involvement in UCSB’s largest outreach, “SciTrek”. The outreach brings university students into local classrooms (this class will focus largely on Junior High and High School classes) to help run inquiry into diverse topics such as math, biology, chemistry, and physics. The outreach does not require that you be a STEM major. Prior university students have improved in their critical thinking even in this one quarter of in class and outreach engagement.

Bio: professor of biochemistry and cofounder of SciTrek

INT 86FH - “Aging & Longevity Studies”

- **Seminar Type:** *First Year Exploration*
- **Department:** Psychological & Brain Sciences
- **Instructor:** Nicole Alea Albada
- **Instructor Email:** nicole.albada@psych.ucsb.edu
- **Day - Time - Room:** Tuesdays from 10:00-10:50 in Psychology East 3834
- **Enroll Code:** 64329

Course Description: There are more older adults alive today than at any other point in human history. This demographic shift has implications for all aspects of society: the economy, healthcare, education, climate change, and individual wellbeing. This seminar will showcase the research occurring across the UCSB campus that is addressing the problems and promises of growing older and living longer lives. Faculty from multiple disciplines, such as psychology, biology, anthropology, cultural studies, and communication, will provide an overview of their field, and discuss the most pressing questions that are being addressed to help ensure that you age successfully.

Bio: Nicole Alea Albada received her BS in Psychology, with honors, from the University of Florida. She continued at the University of Florida, earning her PhD in Developmental Psychology, with an emphasis on adult development and aging. She also received graduate certificates in Gerontology and Social Science methodology. Her PhD was funded by a National Research Service Award (NRSA) Predoctoral Fellowship from the National Institute on Aging. Nicole began her position as an Assistant Teaching Professor at UCSB in 2018. She is the director of the Thinking About Life Experiences (TALE) Lab, which explores why and how people remember events from their life, and the links between remembering autobiographical events and psychosocial well-being in various age groups and across cultures. She primarily teaches research methods, statistics, and adult development and aging to undergraduate students in the PBS program. She is also the Director for Education and Outreach for the Center for Aging and Longevity Studies. She is the Faculty Advisor for the UCSB Chapter of Psi Chi, the International Honors Society in Psychology, and for the UCSB chapter of the Brain Exercise Initiative for older adult community members.

INT 86GG - “The Exploration of Identity & Art: Personal, Cultural, Familial, & Sexual”

- **Seminar Type:** *First Year Exploration*
- **Department:** Art
- **Instructor:** Kip Fulbeck
- **Instructor Email:** seaweed@arts.ucsb.edu
- **Day - Time - Room:** Tuesdays 10:00-11:50 in ARTS 1237 ***this seminar will meet the first 5 weeks of the quarter**
- **Enroll Code:** 58040

Course Description: The exploration of identity continues to be a focus of contemporary artists. Examining how we create and recreate our internal and external selves allows us to better understand our interactions in personal, social and political arenas. In this interactive workshop, students will view work by various filmmakers, artists, and performers, and engage in lively discussions pertinent to their phase in life.

Bio: Kip Fulbeck is a Distinguished Professor of Art, with affiliate appointments in Asian American Studies and Film & Media Studies. He has exhibited worldwide and has been featured on CNN, MTV, The New York Times, The TODAY Show, Voice of America, and various NPR programs. He is the author of numerous books and the recipient of UCSB's Faculty Diversity Award and Distinguished Teaching Award.

INT 86IT - “How to think like a scientist”

- **Seminar Type:** *First Year Discovery*
- **Department:** Center for Innovative Teaching, Research, and Learning

- **Instructor:** Nathan Emery
- **Instructor Email:** nemery@ucsb.edu
- **Day - Time - Room:** Wednesday 1:00-1:50 in HSSB 1227
- **Enroll Code:** 67819

Course Description: A critical component of science is how you approach and think about concepts and problems. In this course, students will explore many ways of thinking that are practiced by scientists from across STEM disciplines. The frameworks and mindsets that we cover will help students learn scientific concepts and skills in current and future courses. Additionally, this course seeks to help students be prepared for interacting in a world full of data and scientific information.

Bio: Nathan Emery, is the STEM Education Coordinator in CITRAL and has a PhD from the EEMB department. He has expertise in Biology Education and Plant Ecology. He has taught several courses at UCSB in the past and enjoys working with students on how the process of science works.

INT 86JV - “The Beauty of Mathematics”

- **Seminar Type:** *First Year Exploration*
- **Department:** Math
- **Instructor:** Daryl Cooper
- **Instructor Email:** cooper@math.ucsb.edu
- **Day - Time - Room:** Wednesday 11:00-11:50 in GIRV 1108
- **Enroll Code:** 58057

Course Description: In 1610 Galileo said that "The language of nature is mathematics." By this he meant the world, and indeed the universe we live in, can only be understood with the aid of mathematics. Just as one can appreciate music without being able to read a note of it, and a painting without being able to hold a brush, so one can appreciate the beauty of mathematics without the formulae. We will travel from the mathematically inspired art of M.C. Escher and the infinite complexity of Mandelbrot's fractals to the transcendence of music as epitomized by Bach. We will discover why mirrors reverse left to right but not up and down. We will contemplate the sublime: what is infinity? And imagine the seemingly unimaginable: what shape is our universe? Want to win the lottery? We will explore every day uses of logic such as chance and probability. The only prerequisite for this class is a willingness to suspend disbelief. The course will be heavy on ideas and light on numbers. There is no need for a calculator.

Bio: Professor Cooper's main research is in topology which can be used to describe the shape of all possible universes. He is also an expert on the geometry of the infinitely large and infinitesimally small.

INT 86PZ - “Improving critical thinking”

- **Seminar Type:** *First Year Exploration*
- **Department:** Chemistry and Biochemistry
- **Instructor:** Norbert Reich
- **Instructor Email:** reich@chem.ucsb.edu
- **Day - Time - Room:** Tuesdays 12:00-12:50 in HSSB 1207 ***This seminar will meet the first two Tuesday's of the quarter in HSSB 1207 at UCSB, and the last two weeks of the quarter. Please note that 6 hours of this**

seminar will be off campus at the K-12 schools and at various times. You will sign up for the time that works best for your schedule.

- **Enroll Code:** 58065

Course Description: Improve your ability to think critically, probably the most important skill you will be hired for in the future, whatever your degree is in. This course is a blend of instruction from Biochemistry Professor Norbert Reich, who works on drug development for cancer and antibiotics, through reading and discussing papers on critical thinking, and your involvement in UCSB's largest outreach, "SciTrek". The outreach brings university students into local classrooms (this class will focus largely on Junior High and High School classes) to help run inquiry into diverse topics such as math, biology, chemistry, and physics. The outreach does not require that you be a STEM major. Prior university students have improved in their critical thinking even in this one quarter of in class and outreach engagement.

Bio: Full professor of Biochemistry, founder of SciTrek, UCSB science outreach.

INT 86VL - *The Climate Crisis, A Closer Look*

- **Seminar Type:** *First Year Discovery*
- **Department:** English
- **Instructor:** Ken Hiltner
- **Instructor Email:** hiltner@english.ucsb.edu
- **Day - Time - Room:** Tuesday 10:00-10:50 in Kerr 2166B
- **Enroll Code:** 70649

Course Description: In this seminar, we will see and discuss anthropogenic (i.e. human-caused) climate change for what it is and address it as such: a human problem brought about by human actions. In other words, we will be exploring why we do what we do, even when these actions are disastrous for our planet and our species (and most other species on the planet).

Bio: Ken Hiltner is a UCSB professor with appointments in both the English and Environmental Studies Departments. In his research and teaching, he seeks to understand the cultural implications of the climate crisis. In addition to UCSB, Ken has taught at Harvard, where he received his Ph.D., and at Princeton, where he served for a year as the Currie C. and Thomas A. Barron Visiting Professor in the Environment and Humanities at Princeton University's Environmental Institute (PEI).

He/Him; always "Ken," never "Professor Hiltner."

INT 86VW - *“Exploration of the Physics major: from curious freshmen to young professionals”*

- **Seminar Type:** *First Year Exploration*
- **Department:** Physics
- **Instructor:** Tengiz Bibilashvili
- **Instructor Email:** tbib@physics.ucsb.edu
- **Day - Time - Room:** Wednesday 4:00-4:50 in ILP 3103
- **Enroll Code:** 58073

Course Description: The class is designed for students who are majoring in physics. The goal of the seminar is to explain how physics majors get educated and who they become after receiving a BS in physics. Students in the class will build their virtual plan for classes from freshman fall to senior spring. They will also make a plan for doing research at UCSB and beyond. Moreover, students will explore post-BS options. The seminar is mostly discussion-based, but there will be some intro presentations by the instructor and invited guests (current students and faculty members).

Bio: Dr. B aka Tengiz Bibilashvili earned his Ph. D. at Tbilisi State University. His thesis was about Non-equilibrium Quantum Field Diagrammatic. Later he focused on teaching physics and he prepared several Gold, Silver and Bronze Medal winners at the International Physics Olympiads. Currently Dr. B is teaching classes and provides academic advice. Most of his students continue their education in top universities or start their career right after graduation with BA in physics.

INT 86WM - “Open Source: Software, Hardware, and Beyond”

- **Seminar Type:** *First Year Exploration*
- **Department:** Computer Science
- **Instructor:** Jonathan Balkind
- **Instructor Email:** jbalkind@ucsb.edu
- **Day - Time - Room:** Monday 3:00-3:50 in HSSB 1215
- **Enroll Code:** 58099

Course Description: We hear more and more today about open source. Much of the software we use is often open source, but what exactly does it mean? And how can it extend beyond software? The District of Columbia's law is now open and available for modification online. Entire open-source processors are being developed today, too. This seminar will dive into the use and implications of this new open paradigm, both in computer science and far beyond.

Bio: Jonathan Balkind is an Assistant Professor in the Department of Computer Science at the University of California, Santa Barbara. His research interests lie at the intersection of Computer Architecture, Programming Languages, and Operating Systems. Jonathan completed his PhD and MA degrees at Princeton University and his MSci degree at the University of Glasgow. He is the Lead Architect of OpenPiton and its heterogeneous-ISA descendent, BYOC, which are productive, open-source hardware research platforms with thousands of downloads from over 70 countries worldwide. Jonathan was an Open Hardware Trailblazer Fellow and recipient of the NSF CAREER Award. Since 2021, he has served as a Director of the FOSSi Foundation.

First Year – Discovery+ Seminars (2 Instructors)

INT 87AH - “Intro to Global Music”

- **Seminar Type:** *First Year Discovery+*
- **Department:** Music & Music

- **Instructor:** Scott Marcus & Richard North
- **Instructor Email:** smarcus@music.ucsb.edu, richardnorth@ucsb.edu
- **Day - Time - Room:** Monday 12:00-12:50 Building 387 room 1015, **This seminar will also meet on Wednesdays 12:00-12:50 in the courtyard in front of the Multicultural Center next to the Corwin Pavillion for the World Music Concert Series.**
- **Enroll Code:** 71043

Course Description: The class will have 2 components: weekly lectures and weekly performances. Lectures will focus on socio-cultural and musical aspects of a variety of world music traditions (including Gospel, Indian classical music, Indonesian gamelan, jazz, Klezmer, Mexican norteño and mariachi, Middle Eastern, and Sephardic musics). The lectures will be paired with live performances of the musics discussed in the lectures.

Bio: **Scott Marcus**, Professor of Music (Ethnomusicology) at the University of California, Santa Barbara, works on musics of the Arab world and North India. In addition to teaching lecture and seminar classes, Scott is the founder and director of the UCSB Middle East Ensemble and also teaches sitar at UCSB. He is the author of *Music in Egypt* (Oxford University Press), co-editor of *The Garland Encyclopedia of World Music, vol. 6: The Middle East*, and author of articles on Arab music theory and North Indian folk music. He has conducted fieldwork in Cairo, Egypt (largely on maqam and mizmar traditions) and in Banaras, India (on sitar performance and the biraha genre of Bhojpuri folk music). For his Ph.D. at UCLA, he studied under A.J. Racy and Nazir Ali Jairazbhoy. Scott also teaches at the annual weeklong workshop, The Mendocino Middle Eastern Music and Dance Camp.

Richard North, Continuing Lecturer (leading the UCSB Gamelan Ensemble) has studied and taught gamelan since the early 1970s. He studied at UCSD, at the University of Washington (Seattle), at the Center for World Music in Berkeley, and in West Java and Cirebon, Indonesia. Prior to coming to UCSB, he taught at UCSD, UCSC, San Jose State College, Hawaii Loa College, North Seattle Community College, and in Cirebon, Indonesia.

North is a master exponent of relatively little-known styles of Gamelan from Sunda, Malaysia, and his special focus, the ancient Indonesian kingdom of Cirebon. He currently serves in an advisory role to numerous music students and Gamelan students in Cirebon, both at the royal court and village level.

In 2002, North established a Santa Barbara-based community Gamelan group, called Gamelan Sinar Surya, which focuses on Sunda, Malaysia and Cirebon Gamelan styles. The group performs widely and has produced several commercial CDs and numerous videos on YouTube. Under North's direction, the UCSB Gamelan Ensemble regularly performs formal quarterly concerts for the campus and larger Santa Barbara community.

INT 87AX - "Arts & Lectures Justice for All"

- **Seminar Type:** *First Year Discovery+*
- **Department:** Art & History of Art and Architecture
- **Instructor:** Kim Yasuda and Laurie Monahan
- **Instructor Email:** yasuda@ucsb.edu, monahan@arthistory.ucsb.edu
- **Day - Time - Room:** Thursday 5:00-6:50 in PHELP 2532
- **Enroll Code:** 58180

Course Description: Arts & Lectures Justice for All Series presents the opportunity to introduce newly-arrived students on campus to the justice-focused events, providing the opportunity for them to experience free live performances by some of the leading creative thinkers and practitioners of our time as well as an accompanying seminar facilitated by campus faculty from across the disciplines to come together in dialogue and reflect upon the topics and themes of this series.

Arts & Lectures Justice for All Series was established in 2020 to confront the inequalities that shape our policies, our institutions and our lives. Our collective awakening demands a just, tolerant, open and socially inclusive world, one which frees us to thrive. In this series public figures, organizers, thinkers and doers expose deeply embedded injustices and call for a more equitable future.

The successful pilot with 23 students from Winter 2022 was led by two faculty in two different departments/divisions (Art + CCS) and maintained a schedule designed to host weekly faculty-student discussions in addition to student attendance of the live performances at Campbell Hall and the Granada Theatre

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The 10-week program engaged mostly freshman from across the disciplines in Art, Asian American Studies, Biological Sciences, College of Creative Studies, Communications, Earth Sciences, Sociology and more. A post-seminar survey revealed that many of the students had never experienced live arts and cultural performance prior to this experience and that this program had been instrumental to introducing them to the opportunity and critical topics centered on Racial Justice.

The Arts & Lectures Faculty advisory board serves as the steering committee and organizing body to identify key faculty to participate in this series and would facilitate deeper engagement through this Discovery/linked seminar opportunity in coordination with the Arts & Lectures program series.

Bio: Kim Yasuda is an artist and professor of Public Practice in the Department of Art at the University of California Santa Barbara. Her work investigates the role of art, artists, and educational institutions in community development and civic life. Yasuda's past exhibition work has been presented at museums and alternative spaces in Canada, the United States, and the United Kingdom, including the New Museum of Contemporary Art and Art in General, New York; Whitney Museum of American Art@ Champion, CT; Massachusetts Institute of Technology List Visual Arts Center, Boston; Art Gallery of Ontario, Canada; Camerawork Gallery, East London. She has been the recipient of individual artist grants from the National Endowment for the Arts, US/Japan Foundation, Howard Foundation, Art Matters, Joan Mitchell Foundation, and Anonymous Was a Woman Foundation. Yasuda's previous commissioned public projects include station designs for the Broad Street Corridor transit system in Providence, Rhode Island, the Green Line Vermont Metrorail, and Union Station Gateway Center for the Metropolitan Transit Authority of Los Angeles. Her permanent commemorative works are part of the public art collections for the cities of St. Louis, San Jose, and Hollywood, designed to preserve the cultural legacies and local histories of these communities. Yasuda's current research intersects her university teaching with her public art practice, shaping pedagogical experiments that explore the intersection between institutional knowledge production and creative practice. Yasuda and her students have undertaken numerous projects together, working on temporary public interventions and permanent urban renewal projects in the student community of Isla Vista. These open-access, collaborative learning environments maintain a separate academic calendar and curricula to conduct year-round, off-site, and multi-disciplinary projects.

Laurie Monahan specializes in early 20th century European painting and visual culture, with an emphasis on Surrealism and related movements from the 1920s and 1930s. Her research interests extend into the post-WWII period, with a focus on cultural relations between Europe and the United States, particularly in the 1960s. Her publications include essays on André Masson, Henri Matisse, and photographers Lee Miller and Claude Cahun. She has also published on Robert Rauschenberg and the Venice Biennale of 1964. She is currently finishing a book entitled *A Knife into Dreams: André Masson, Massacres, and Surrealism of the 1930s*, which addresses the politics of violence and myth and their relationship to French radical politics of the 1930s through Masson's work. Monahan's next major project, *Kiosk Culture*, focuses on French visual culture through Parisian photo-journals and avant-garde publications of the interwar period.