Berkeley Climate Change Network

Unofficial Guide to Spring 2024 Climate-Related Courses

Follow links to the Course Catalogue for more detail

Are we missing a climate-related class? E-mail bruceriordan@berkeley.edu

Class	<u>Page</u>
An Interdisciplinary Approach to Land Development and Investment	31
Approaches and Paradigms in the History of Rhetorical Theory II	30
Art and Climate Change	16
Bioenergy	12
Biological Impacts of Climate Change	6
Challenge Lab: Designing Startups to Transform Society A Berkeley Changemaker® Course	33
Climate and Energy Policy	33
Climate Change and Business Strategy (Haas)	41
Climate Change and City Planning — Adaptation and Resilience	8
Climate Change and the Senses	6
Climate Change Mitigation	3
Climate Impacts and Risk Analysis	3
Climate Science and Society	5
Climate Story Lab: Water Equity Climate Change in CA	16
Community Organizing	38
Comparative livestock production systems: Food, ecosystems, and livelihoods	22
Data Science: Urban Transitions to Carbon Neutrality	40
Decolonizing Environmentalism	15
Eco Art: Art, Architecture, and the Natural Environment	27
Energy and Climate Policy in China	31
Energy and Environmental Markets (Haas)	43
Engineering Social Justice	23
Environmental Change Genetics	10
Environmental Health and Development	13
Environmental Issues	25
Environmental Justice Education	17
Extreme Weather and Climate	34
Financial Economics of Climate and Sustainability	37
From Imagination to Innovation: Activating creativity for transformational change	35

Global Change Biology	11
Global China	38
Global Warming	9
Haas Impact Fund (Haas)	42
Health Implications of Climate Change	9
How to be a Rausser CNR Scientist: Creating a Climate of Inclusion	34
HydroClimate Modeling	36
Island and Coral Reef Resilience and Ecosystem Services	32
Leadership & Social Change	38
Literature of Destruction	28
Living Futures: Regenerative Environmental Design	20
Magnificent Diversity: Eco-Thinking in the Age of Climate Change	18
Organizations and Social Institutions	23
Petrofiction & Climate Fiction	19
Plant Futures Challenge Lab (Haas)	41
Quantitative Aspects of Global Environmental Problems	13
Renewable Energy	21
Responding to Eco Apocalypse	27
Solutions for a Sustainable & Just Future	19
Stories of Sustainability	14
Strategic Planning & Organizing for a Sustainable Innovation Zone in Oakland	39
Structural Bioinformatics and Data Science	37
Sustainable Investment Fund (Haas)	40
The Age of Anxiety: Fear in Society	28
The Art of Writing Climate	7
The Economics of the Clean Energy Transition	43
The Great Disinflationary Period and the Future of the Global Economy	26
The Living Planet: Impact of the Biosphere on the Earth System	11
The Political Economy of Sustainable Development & Urbanism	36
The Politics of Climate Change	24
The Power of Images to Communicate Climate Realities and Solutions to Diverse Audiences	4
Writing the American City: Redlining to Gentrification	29

Climate Impacts and Risk Analysis

GEOG 149B_001 - LEC 001 offered through Geography(opens in a new tab)

Norman L Miller

Jan 16 2024 - May 03 2024

M, W

9:30 am - 10:59 am

McCone 145 (opens in a new tab)

Class #:20397

Units:3

Instruction Mode: In-Person Instruction

Open Seats

23 Unreserved Seats

Climate impacts and risk analysis is the study of weather-related catastrophes such as heat waves, floods, droughts, fires, and tropical cyclones, and builds on material from GEOG 149A: Climates of the World. We will review how large-scale climate and local weather patterns set up, learn detection and attribution to climate change, risk probabilities and the types of impacts incurred.

Climate Change Mitigation

Spring 2024

CIVENG 107_001 - LEC 001 offered through Civil and Environmental Engineering(opens in a new tab)

Joshua Apte

Tu, Th

9:30 am - 10:59 am

Davis 534 (opens in a new tab)

Class #:16449

Units:3

Instruction Mode: In-Person Instruction

No Open Seats

Assessment of technological options for responding to climate change. Overview of climate-change science; sources, sinks, and atmospheric dynamics of greenhouse gases. Current systems for energy supply and use. Renewable energy resources, transport, storage, and transformation technologies. Technological opportunities for improving end-use energy efficiency. Recovery, sequestration, and disposal of greenhouse gases. Societal context for implementing engineered responses.

The Power of Images to Communicate Climate Realities and Solutions to Diverse Audiences

Spring 2024

HISTART R1B_007 - LEC_007 offered through History of Art(opens in a new tab)

Jack Chang

Jan 16 2024 - May 03 2024

M, W

5:00 pm - 6:29 pm

Moffitt Library 104 (opens in a new tab)

Class #:17797

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Communicating the scale and impact of human-driven climate change is an urgent challenge as rising temperatures, more violent storms, wildfires, sea level rise, and other climate-driven disruptions threaten the habitability of the entire planet. But just as climate change impacts different populations in different ways–depending on geography, wealth, economy, and other factors–climate messages resonate in distinct ways with different audiences depending on politics, race, ethnicity, nationality, gender, and other personal characteristics. This course will look at the power of images to communicate to different audiences the scale of climate disruption unfolding across the globe and how the same image can be read differently depending on one's values or culture. This course will draw on research measuring survey respondent reactions to specific climate change images as well as theoretical discussions into how images convey meaning to viewers; the use of framing and values-based messaging to tailor climate communications; and how to design climate images and messages to communicate climate science and public policy. This course satisfies the second semester Reading and Composition (R&C) requirement. Through your close reading of scholarly texts and close looking at photographs, videos, and other images over the course of the semester, you will hone your critical reading and writing skills. In the first half of the semester, you will be tasked with completing regular analyses of images

and/or texts in short essay format. This exercise will cultivate the necessary skills to isolate a topic and develop your final research paper (10-12 pages). In this paper, you will connect your understanding of how politics, nationality, and other personal characteristics can shape perceptions of climate change to your ideas about how specific climate images can communicate climate realities to audiences.

Climate Science and Society

Spring 2024

ENERES 290_001 - SEM_001 offered through Energy and Resources Group(opens in a new tab)

Andrew D Jones

Jan 16 2024 - May 03 2024

Th

11:00 am - 12:59 pm

Requested General Assignment

Class #:29775

Units:2

Instruction Mode: In-Person Instruction

Time Conflict Enrollment Allowed

No Open Seats

Science plays a key role in shaping our understanding of climate change, its impacts on society, and the option space for responding to it. An emerging field examines the space of actionable knowledge generation for climate-related decision-making, including efforts to support decision-making within the context of deep uncertainty. Meanwhile, climate resilience and mitigation efforts take place within the backdrop of and have the potential to exacerbate existing environmental injustice. Ultimately our ability to act upon scientific information in support of enhanced resilience and justice is constrained by the ways human cognitive and emotional processes make sense of information. In this primarily reading-and discussion-based seminar we will engage with theoretical frameworks and case studies to advance student understanding at the intersection of climate science, climate resilience, decision-making, environmental justice, and human cognition. Students are encouraged to reflect on the course themes within the context of their ongoing research and/or policy interests. While we will engage with technical topics from a theoretical and conceptual point of view, the class does not require the application of quantitative methods. A basic understanding of climate science, climate change, and the challenges associated with adaptation and mitigation is expected.

Biological Impacts of Climate Change

Spring 2024

INTEGBI 24_001 - SEM_001 offered through Integrative Biology(opens in a new tab)

Caroline Margaret Williams

Jan 16 2024 - May 03 2024

Tu

2:00 pm - 2:59 pm

Valley Life Sciences 4110 (opens in a new tab)

Class #:17825

Units:1

Instruction Mode: In-Person Instruction

No Open Seats

The pace of current climate change is orders of magnitude faster than any changes experienced in the Earth's past. This is reconfiguring biological diversity in ways that we are only beginning to recognize. Organisms are shifting their distributions in time and space, and experiencing population fluctuations and extinctions. In this seminar we will explore the biological impacts of climate change on plants, animals (including humans), communities, and ecosystems. This seminar is for anyone who cares about the planet and wants to understand climate change research and become a more effective advocate for understanding climate change. You must be prepared to fully engage with the course, contribute actively to discussions, and do all the readings. Caroline Williams is an Associate Professor in Integrative Biology. She is an evolutionary physiologist who studies the evolution of metabolism in response to environment perturbations.

Climate Change and the Senses

Spring 2024

ANTHRO 189_004 - LEC 004 offered through Anthropology(opens in a new tab)

Sarah E Vaughn

Jan 16 2024 - May 03 2024

Tu, Th

12:30 pm - 1:59 pm

Cory 289 (opens in a new tab)

Class #:31610

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

This course is intended to be an introduction for students interested in the critical study of climate change. It does so by pursuing questions about the psychic and social forms of life shaped by technologies used to understand, represent, and manage climate change. Of primary concern is what these technologies tell us about the formation of subjectivity and how people sense changes in climate over time. To this end, we will explore a variety of cultural and historical locations, and a diverse set of ideas related to climate change such as catastrophe, uncertainty, the Anthropocene, and vulnerability.

The Art of Writing Climate

Spring 2024

HISTORY 100U_003 - LEC_003 offered through History(opens in a new tab)

Michael Nylan

Jan 16 2024 - May 03 2024

Tu, Th

3:30 pm - 4:59 pm

Dwinelle 235 (opens in a new tab)

Class #:31808

Units:4

Instruction Mode: In-Person Instruction

Open Seats

12 Unreserved Seats

This is an Art of Writing Course. This course will address many subjects, all of which revolve around climate change, always looking at the strengths and weaknesses of the major arguments made. On the subject of responsibilities owed to future generations, we will dissect statements and promises being made by world leaders (including the United Nation's Antonio Guterres, China's Xi Jinping, UK's Rishi Sunak, and climate leaders in the US), as well as the counter-arguments posed by leaders of civil society from a great variety of backgrounds. Seminal works about climate will be discussed in class, from Rachel Carson to Eugene Linden, from Rebecca Solnit to Kim Stanley Robinson. Obviously enough, deeply divergent histories of climate change can be told: for example, a corporate history, a political history, a legal history, and a people's history, not to mention poetry and graphic novels. Some of the stories rely

less on numbers (such as profit margins of fossil fuel companies, pay-outs to shareholders, tonnage of sequestered carbon per year, annual commitments to renewable energy forms) than on personal and community stories, as with Jake Bittle's The Great Displacement (2023). Are the stories less powerful for being more granular? As Sultan Al Jaber (CEO of Abu Dhabi National Oil Company, and, ironically, host of the recent COP28, devoted to climate change) recently stated: "If you want to understand the state of the world's climate efforts, follow the money." Historians have been trained to ask, "Who benefits?" (cui bono). Posing such questions immediately plunges us into the key distinction between long-term decision-making, with its uncertainties, vs. short-term projections and their (illusory?) certainty, also, the peculiarities of Anglo-American and international laws. Co-taught with Thomas Hahn (Ph.D. Heidelberg).

Climate Change and City Planning — Adaptation and Resilience

Spring 2024

ENVDES 102_001 - LEC 001 offered through Architecture(opens in a new tab)

Stephen John Collier

Jan 16 2024 - May 03 2024

Tu, Th

12:30 pm - 1:59 pm

Wurster 106 (opens in a new tab)

Class #:32995

Units:3

Instruction Mode: In-Person Instruction

Open Seats

20 Seats Reserved for Sustainable Environmental Design Majors with 5 or more Terms in Attendance

5 Seats Reserved for Students with Enrollment Permission

10 Seats Reserved for College of Environmental Design Students with 5 or more Terms in Attendance

This course introduces students to major issues in urban resilience and adaptation planning, particularly in relation to anthropogenic climate change. By the end of the course, students will have: (1) a critical understanding of key concepts such as risk, vulnerability, adaptation, and resilience; (2) an understanding of the interaction between adaptation planning, policy, and urban operating systems such as infrastructures, finance, and land use governance; (3) a basic introduction to practical tools such as vulnerability mapping, urban carbon budgeting, and participatory vulnerability assessment. The course will primarily draw on case material from the United States and secondarily from selected international cases.

Global Warming

Spring 2024

LS 70B_001 - LEC_001 offered through <u>Undergraduate Interdisciplinary Studies(opens in a new tab)</u>

John Chiang, Nathan F Sayre

Jan 16 2024 - May 03 2024

M, W, F

12:00 pm - 12:59 pm

Valley Life Sciences 2040 (opens in a new tab)

Class #:31065

Units:4

Instruction Mode: In-Person Instruction

Open Seats

29 Unreserved Seats

This lower-division course introduces global warming as both a scientific and social issue. We will introduce the physical science that sets the stage for the problem, from the basic concepts of climate (carbon cycle, greenhouse effect, climate feedbacks) through to the climate model projections of future climate changes and their impacts. Social scientific perspectives will be integrated throughout, including the history of climate science, the geographical and political-economic implications of fossil fuels and industrial production, and the challenges posed to existing regulatory and governance systems by the current and prospective impacts of global warming. Several guest lecturers will give in-depth reviews of specific topical issues. We aim to provide students with a solid understanding and information base with which to analyze and evaluate ongoing developments and (often heated) debates surrounding global climate change.

Health Implications of Climate Change

Spring 2024

PBHLTH 271G_001 - LEC_001 offered through School of Public Health(opens in a new tab)

Justin V Remais

Jan 16 2024 - May 03 2024

Th

12:00 pm - 1:59 pm

Berkeley Way West 1205

Class #:27183

Units:3

Instruction Mode: In-Person Instruction

Open Seats

16 Unreserved Seats

This course explores the Public Health effects of global climate change: physical basis of climate change, including causes & projections; burden of disease stemming from global climate change, emphasis on impacts in the developing world, global & local equity issues, interaction between climate change mitigation/adaptation activities & existing global health initiatives; direct exposures (extreme heat, drought, precipitation, sea-level rise), indirect exposures (vector-borne & zoonotic diseases, ecosystem disruption, water quantity & quality, land arability & food production, population displacement). After taking this course, students will be well positioned for further work on global environmental change and health.

Environmental Change Genetics

Spring 2024

ESPM 108B_001 - LEC_001 offered through Environmental Science, Policy, and Management(opens in a new tab)

Rainbow Desilva

Jan 16 2024 - May 03 2024

M, W

1:00 pm - 1:59 pm

Wheeler 108 (opens in a new tab)

Class #:31397

Units:3

Instruction Mode: In-Person Instruction

No Open Seats

This course will examine the consequences of environmental change on the levels and distribution of genetic diversity within species. Students will be introduced to methods of analysis and their application to organisms from a range of ecosystems. The fate of populations under rapid environmental change

will be assessed in the light of dispersal and adaptation (genetic and epigenetic) potential. Students will learn to use population genetics freeware to evaluate molecular data.

Global Change Biology

Spring 2024

ESPM 152_001 - LEC_001 offered through Environmental Science, Policy, and Management(opens in a new tab)

Christine Gehrig-Downie

Jan 16 2024 - May 03 2024

M, W

1:00 pm - 1:59 pm

Valley Life Sciences 2060 (opens in a new tab)

Class #:15050

Units:3

Instruction Mode: In-Person Instruction

Open Seats

2 Unreserved Seats

The course will focus on understanding how anthropogenic changes to the global environment (e.g., climate change, habitat destruction, global trade) impact organisms. We will evaluate responses to global change in a wide diversity of organisms (from microbes to mammals) and ecosystems (from arctic to temperate to tropical). We will also explore conservation and mitigation strategies in the face of global change. Discussions will draw on recent primary research and case studies.

The Living Planet: Impact of the Biosphere on the Earth System

Spring 2024

INTEGBI 159_001 - LEC 001 offered through Integrative Biology(opens in a new tab)

Ivo Duijnstee

Jan 16 2024 - May 03 2024

M 2:00 pm - 3:59 pm

Genetics & Plant Bio 107 (opens in a new tab)

Class #:21251

Units:3

Instruction Mode: In-Person Instruction

Open Seats

4 Unreserved Seats

Earth is a complex dynamic system. Interplay between its components (solid earth, oceans, and atmosphere) governs conditions on the planet's outside that we and other biota inhabit. In turn, life asserts a vast influence on the abiotic components; in fact, the biosphere itself is a crucial system component. We will explore the effect that 3.5 billion years of evolving biosphere had on System Earth and vice versa (e.g., in terms of climate), including the recent human impact on the system.

Bioenergy

Spring 2024

PLANTBI 122_001 - LEC 001 offered through Plant and Microbial Biology(opens in a new tab)

Anastasios Melis

Jan 16 2024 - May 03 2024

Tu, Th

9:00 am - 9:59 am

Wheeler 102 (opens in a new tab)

Class #:15191

Units:2

Instruction Mode: In-Person Instruction

Open Seats

3 Unreserved Seats

Offers an assessment of global energy supply and demand, addresses the chemistry of climate change, examines the response of plants and microbes to changes in the environment, and emphasizes the role of biology and photosynthesis in offering solutions to related energy and societal problems. Bioenergy is examined from the point-of-view of potential biofuels, including aspects of the biological generation of hydrogen, hydrocarbons, fatty acids, lipids, and bio-oils, polymers and related materials.

Quantitative Aspects of Global Environmental Problems

Spring 2024

ENERES 102_001 - LEC 001 offered through Energy and Resources Group(opens in a new tab)

Lara Marie Kueppers, Julia Meihua Longmate

Jan 16 2024 - May 03 2024

Tu, Th

9:30 am - 10:59 am

Wurster 102 (opens in a new tab)

Class #:14944

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Human disruption of biogeochemical and hydrological cycles; causes and consequences of climate change and acid deposition; transport and health impacts of pollutants; loss of species; radioactivity in the environment; and quantitative models to understand these environmental problems.

Environmental Health and Development

Spring 2024

ESPM C167_001 - LEC 001 offered through Environmental Science, Policy, and Management(opens in a new tab)

Kurt Spreyer

Jan 16 2024 - May 03 2024

Tu, Th

9:30 am - 10:59 am

Lewis 100 (opens in a new tab)

Class #:15062

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Also offered as: PBHLTH C160

The health effects of environmental alterations caused by development programs and other human activities in both developing and developed areas. Case studies will contextualize methodological information and incorporate a global perspective on environmentally mediated diseases in diverse populations. Topics include water management; population change; toxics; energy development; air pollution; climate change; chemical use, etc.

Stories of Sustainability

Spring 2024

COLWRIT R4B_009 - SEM_009 offered through College Writing Programs(opens in a new tab)

Kimberly Freeman

Jan 16 2024 - May 03 2024

Tu, Th

11:00 am - 12:29 pm

Wheeler 100 (opens in a new tab)

Class #:17480

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Whether or not one believes our climate is changing or that humans are contributing to these changes, one can't deny the prominence of the idea in our current global culture. Not only is it a common occurrence on newspaper front pages and a popular theme in social media like Twitter, but it is also an issue that affects an array of subcultures, from nations and neighborhoods to academic disciplines and the arts. The aim of this course is not to prove or disprove any particular aspect of climate change or sustainability. Rather the theme of this course focuses on the stories we tell about sustainability. We'll read and watch an array of media, from popular forms, such as films, T.V. shows, newspapers, and web sites. One of the ways that we tell stories is through our different academic disciplines, so we'll also get a taste of writing in different disciplines as well as in different academic forms, such as research articles and reviews, from a variety of disciplines, such as biology, international relations, and economics. Students will write a variety of analytical essays, as well as write their own research project.

Decolonizing Environmentalism

Spring 2024

DeCAL

ESPM 198_020 - GRP_020 offered through Environmental Science, Policy, and Management(opens in a new tab)

Jan 16 2024 - May 03 2024

Tu

6:30 pm - 7:59 pm

Mulford 240 (opens in a new tab)

Class #:33283

Units:2

Instruction Mode: In-Person Instruction

Open Seats

50 Seats Reserved for Students with Enrollment Permission

"*formerly known as Decolonizing Climate Education Are you tired of how environmentalism and climate education only focuses on Western solutions? Interested in exploring how colonization is responsible for the climate crisis? We will be covering decolonial theory in relation to environmentalism using case studies from Africa, Asia, Americas, and Oceania. We strive to uplift traditional ecological knowledge around the globe, and explore how it can provide creative and innovative power to complement and correct current Western solutions permeated with injustice. Let's explore how decolonization is inextricably linked to environmental justice! Through guest speakers, engaging activities, events, assignments focused on your specific interests, and outside events in partnership with community organizations, we hope to provide an engaging and welcoming space for all students of all backgrounds. APPLICATION FORM: https://forms.gle/fUoMbnjQz2MprCf96 Our DeCal strives to uplift indigenous voices and ecological knowledge as the majority of environmental education is centered in Western frameworks. It is critical to highlight the global impact of colonialism on the environment, and to illuminate and affirm traditional ecological knowledge. This is crucial to reviving our planet, healing our relationships, and fostering equitable change in a system established on centuries of oppression. Decolonizing the climate space includes unlearning and unpacking dominant frameworks (capitalism, green imperialism, neocolonialism, climate colonialism). Centering community care, radical joy, and advocacy resilience remains critical in our content. Course format: The course includes 1.5 hours of weekly lectures, and students are expected to engage with assigned readings in advance of each class. Additionally, there are two mini essay assignments designated for both the midterm and final examinations. Attendance is mandatory in this course. "

Climate Story Lab: Water Equity Climate Change in CA

Spring 2024

JOURN 298_006 - SEM 006 offered through Graduate School of Journalism(opens in a new tab)

Jason Spingarn-Koff, Mark Jeffrey Schapiro

Jan 16 2024 - May 03 2024

Μ

1:00 pm - 3:59 pm

North Gate 104 (opens in a new tab)

Class #:33204

Units:3

Instruction Mode: In-Person Instruction

No Open Seats

Consent of instructor required for enrollment.

Specialized seminar topics in reporting and writing.

Art and Climate Change

Spring 2024

ART 160_002 - STD 002 offered through <u>Art Practice(opens in a new tab)</u>

Asma Kazmi

Jan 16 2024 - May 03 2024

Tu, Th

1:00 pm - 3:59 pm

Anthro/Art Practice Bldg 285

Class #:20536

Units:4

Instruction Mode: In-Person Instruction

Open Seats

5 Seats Reserved for Students with Enrollment Permission

7 Seats Reserved for Only Art Practice Undergraduates

This is a production and theory class that looks at creative responses to climate change. We will approach art making through the lens of a socially engaged praxis that creates opportunities about conversations about our political and ecological realities. We will be taking what we read into the world through various kinds of multi-sensorial activities or "practicums" that give us a hands-on exploration of earthly and ecological materials and processes. We will explore an array of creative strategies like drawing, making pigments, making 3D objects using photogrammetry, exploring image based AI, and various forms of community engagement to learn about a web of biological, cultural, and political interrelationships and how such engagements can generate art projects and practices. In addition, we will look at the work of artists, thinkers, and scientists that help us retune our understanding of nature and technology, the human and the non-human. These are the questions that will guide us: How do we tell stories, create new knowledge, question the status quo, envision alternative futures, or push boundaries using new programs, forms, or spatial understandings? How have people at various places and times come together to refuse ecocide, to restore and remediate ecological relationships, and to imagine other ways of being with animals, oceans, plants, atmospheres, and geologic formations. How may we act is this world and allow this changing world to act on us?

Environmental Justice Education

Spring 2024

ESPM 198_011 - GRP_011 offered through Environmental Science, Policy, and Management(opens in a new tab)

Jan 16 2024 - May 03 2024

Tu

5:00 pm - 6:29 pm

Dwinelle 87 (opens in a new tab)

Class #:32987

Units:1

Instruction Mode: In-Person Instruction

Open Seats

30 Unreserved Seats

This course will allow students to teach environmental justice to elementary and middle schoolers and acquire the skills necessary to effectively do so. The Environmental Justice Education (EJE) Program, through the ASUC Office of the President, sends students from UC Berkeley to local elementary and middle schools in marginalized neighborhoods to teach them about the implications of climate change on the justice system. Throughout the course, students will learn how to properly address a classroom of elementary and middle schoolers, workshop their own Environmental Justice-themed lesson plans, review past EJE presentations and give feedback to improve them for future use, and hear from three guest speakers: a local middle-school teacher, a local climate activist, and a UC Berkeley ESPM Department professor. In the final weeks of the course, students will venture to a local school to teach their lesson plan and conduct a final project that reflects on their experience.

Magnificent Diversity: Eco-Thinking in the Age of Climate Change

(Enrollment is limited to students whose first or primary language is not English)

Spring 2024

COLWRIT R1A_028 - SEM_028 offered through College Writing Programs(opens in a new tab)

Teri Crisp

Jan 16 2024 - May 03 2024

Tu, Th

3:30 pm - 6:29 pm

Wheeler 100 (opens in a new tab)

Class #:21077

Units:6

Instruction Mode: In-Person Instruction

Open Seats

1 Seats Reserved for Only open to students who have not completed the ELWR.

A hallmark of humanity is our extraordinary creativity, born and nurtured within the natural world. Yet human industry and development have caused the alarming loss of nature and climate change. What obligations do we have to other species, ecosystems, each other, and coming generations? How can wild nature be conserved and restored? What can we learn from cultures, past and present, whose vision and values have embraced earth's wonders? These are some of the questions we will pursue through reading a variety of writers—scientists, activists, journalists, poets, and others—and through films and art. Through the term, you will have the opportunity to develop your perspectives in writing and lively discussion. *This section is reserved for multilingual speakers. See the Class Notes section.

Solutions for a Sustainable & Just Future

Spring 2024

ESPM 198_003 - <u>GRP</u>003 offered through <u>Environmental Science</u>, <u>Policy</u>, and <u>Management(opens in a</u> <u>new tab)</u>

Jan 16 2024 - May 03 2024

Μ

3:30 pm - 4:59 pm

Valley Life Sciences 2050 (opens in a new tab)

Class #:32935

Units:2

Instruction Mode: In-Person Instruction

Open Seats

387 Unreserved Seats

"Solutions for a Sustainable & Just Future" is an award-winning* crash-course, Everything We Can Do to Save The Planet 101 that aims to equip its students with the tools necessary for changing the fate of humanity. We begin with an in-depth look at consumption, waste streams, and the materials that modern society is made of. Following that, we delve into the circular economy, cradle-to-cradle design, the industrialization of modern food, sustainable cities & architecture, climate change & politics, environmental justice, decarbonization, and more. This course is solutions-based, with scalable actions that you can implement in your life, community, and career to properly address the ecological crisis. Past students agree that it will invariably change your life and make you see the world differently.

Petrofiction & Climate Fiction

Spring 2024

ENGLISH R1B_021 - LEC_021 offered through English(opens in a new tab)

Balthazar I Beckett

Jan 16 2024 - May 03 2024

Tu, Th

11:00 am - 12:29 pm

Dwinelle 211 (opens in a new tab)

Class #:22286

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

In 1992, Amitav Ghosh observed that, despite the ubiquity of petroleum in our lives, oil has "produced scarcely a single [literary] work of note." And in 2006, commenting on the destruction caused by fossil fuels, Ghosh added that "climate change casts a much smaller shadow within the landscape of literary fiction than it does even in the public arena." Other scholars have pointed out that, in their lack of critical engagement with worsening climate chaos, literature—and the humanities at large—are at risk of becoming obsolete. Heeding this call, this course will investigate the footprint that fossil fuel extraction has left on literature from a variety of geographical contexts, ranging from Bedouin communities in Saudi Arabia to Native American tribes in Oklahoma, and how literary texts address the challenges of global warming. We will read both non-fiction and fiction of various genres-from the realism of Upton Sinclair and John Steinbeck to the dystopian novels of Octavia Butler and the emerging genre of climate fiction (Cli-Fi). Building on the skills students acquired in R1A, this course will continue to develop reading, writing, and research skills with the aim to practice writing longer essays that are rhetorically aware and partake in relevant scholarly conversations. Students will conclude this course by submitting a research paper in which they will partake in a scholarly debate that they feel passionate about. Course readings: · Butler, Octavia. Parable of the Talents. . Eggers, David. Zeitoun. · Hogan, Linda. Mean Spirit. · Munif, Abdelrahman. Drifting Cities. . Sinclair, Upton. Oil! · Steinbeck, John. Grapes of Wrath. All other readings will be made available to you via bCourses.

Living Futures: Regenerative Environmental Design

Spring 2024

CYPLAN 98_003 - GRP_003 offered through City and Regional Planning(opens in a new tab)

Tapish Singh, Sahana K Chandran

Jan 16 2024 - May 03 2024

Tu

6:30 pm - 7:59 pm

Wurster 214B (opens in a new tab)

Class #:33840

Units:1

Instruction Mode: In-Person Instruction

Open Seats

28 Seats Reserved for Students with Enrollment Permission

Green building and urbanism have seen huge advances over the last thirty years, yet the climate is reaching a point where we will all experience catastrophic and irreversible changes to the health of our planet within this decade. Considering the rate of change required to avoid the worst effects of the climate crisis and other global socio-environmental challenges, our progress can no longer be incremental. The Living Future framework, created by the International Living Future Institute, radically transforms the paradigm of design from one of doing less harm to one of actively doing good for the world. This solutions-based course will use the seven petals of the Living Building Challenge and the Living Community Challenge as a guide to envision a future that is socially just, culturally rich, and ecologically restorative. We will discuss bold methods for going beyond sustainability, looking at topics such as urban agriculture, net-positive design, healthy and happy neighborhoods, universal inclusion, and biophilia. With a climate justice lens, we will also emphasize case studies of regenerative design beyond the Global North. Within this decade, humanity must reshape its relationship with nature and realign its ecological footprint to be within the planet's carrying capacity. This course is an act of optimism and believes that with the right wisdom and tools in the hands of passionate, sensitive individuals, a revolutionary transformation is possible.

Renewable Energy

Spring 2024

ENGIN 198_004 - GRP_004 offered through Engineering(opens in a new tab)

Naeem Zafar

Jan 16 2024 - May 03 2024

Tu

5:00 pm - 6:29 pm

Genetics & Plant Bio 100 (opens in a new tab)

Class #:16663

Units:1

Instruction Mode: In-Person Instruction

Open Seats

204 Unreserved Seats

According to The Intergovernmental Panel on Climate Change, the fight to keep global warming under 1.5 degrees Celsius post-industrial levels has reached "now or never" territory. Given that we have already reached the 1-degree threshold, drastic changes in our energy sector are needed to curb our emissions. To serve this purpose, the recently enacted Inflation Reduction Act allocates over \$350 billion dollars towards the development of renewable energies and their integration into our existing nationwide energy grid. Presently, the U.S. sources only 20% of its energy from renewables (US Energy

Information Administration). If the U.S. is to meet its goal of carbon neutrality by 2050, there is a significant amount of progress that needs to be made. Inevitably, with the impressive infusion of this level of federal dollars, and the additional private capital stimulated by this funding, substantial and transformative effects will impact a broad swath of UC Berkeley majors, including but not limited to engineering, software design, business finance, environmental design, law, and public policy, etc. This course will focus on addressing the following and more: • How is renewable energy to be implemented into our current-day electricity system? • Where do the various renewable energy markets currently stand in terms of being able to support a carbon-neutral U.S.? • What needs to happen and where do resources need to be allocated in order to support the transition? • When can we realistically see such changes taking place? • Where are there opportunities within the industry for students interested in a renewables career? The renewable energy sector is in store for a major renaissance in solar, wind, and energy storage project development. Given the amount of federal and private funding that is pouring into the industry, we are soon to see a drastic increase in employment opportunities in areas that will instill real, tangible change for the greater good. It is our goal that this course will inspire other students to find their passion within any one of the many varied fields of renewable energy. We hope to help them navigate the industry by hosting a discussion with a guest speaker during each class in a fireside chat format. Here, students will be able to engage in meaningful conversation and learn from the expertise of leaders in the renewable energy industry. Application: https://forms.gle/2oy8wCqxxzMUbkCV9

Comparative livestock production systems: Food, ecosystems, and livelihoods

Spring 2024

ESPM 290_005 - SEM_005 offered through Environmental Science, Policy, and Management(opens in a new tab)

Lynn Huntsinger

Jan 16 2024 - May 03 2024

Class #:29012

Units:1 to 4

Instruction Mode: In-Person Instruction

Open Seats

14 Unreserved Seats

We will explore the ecological and socio-economic context and practices used in livestock production systems around the world, with particular emphasis on ruminant production systems. Topics and issues will include biodiversity and soil conservation; land access and tenure; governance and policy at global and national scales; supply chains and markets; climate change impacts, mitigation, and adaptation; intensification; and nutrition, food security and access. Key academic and public controversies related to land and livestock management will be covered. Dr. Sasha Gennet is a Senior Science and Policy Advisor to The Nature Conservancy.

Engineering Social Justice

Spring 2024

GPP 150_001 - LEC 001 offered through Interdisciplinary Social Science Programs(opens in a new tab)

Khalid Kadir

Jan 16 2024 - May 03 2024

Tu

4:00 pm - 6:59 pm

Social Sciences Building 180

Class #:33641

Units:4

Instruction Mode: In-Person Instruction

Open Seats

9 Seats Reserved for Students with 3 or more Terms in Attendance

1 Seats Reserved for Students with Enrollment Permission

Technology is often presented as the solution to social justice problems, including poverty, hunger, climate change, etc. In such narratives, technology is presented as a way to achieve social justice while avoiding struggles over power, distribution of resources, and historical accountability. In this seminar, we will attempt to unpack this narrative by exploring the complex relationship between engineering, technology, and poverty. Rather than focusing on narrowly construed quantitative measures of the impact of specific technologies upon poverty, we will attempt to understand the relationship between poverty experts – specifically, those who are focused on applying technology to solve issues related to poverty and social justice – and the objects of their interventions – impoverished, under-served, and socially marginalized individuals and communities.

Organizations and Social Institutions

Spring 2024

SOCIOL 110_001 - LEC 001 offered through Sociology(opens in a new tab)

Heather A Haveman

Jan 16 2024 - May 03 2024

12:30 pm - 1:59 pm

Valley Life Sciences 2040 (opens in a new tab)

Class #:19065

Units:4

Instruction Mode: In-Person Instruction

Open Seats

26 Unreserved Seats

2 Seats Reserved for Sociology Majors

This course explains why organizations are the most powerful elements of modern societies. All interests – economic, political, social, and cultural – are pursued through organizations like business firms, social movements, social media, and streaming-TV companies. This course takes students through the history of organizations to how sociologists study organizations to questioning the roles that organizations play in critical challenges like climate change, inequality, and partisan politics.

The Politics of Climate Change

Spring 2024

POLSCI 191_006 - LEC 006 offered through <u>Charles & Louise Travers Dept of Political Science(opens in a</u> <u>new tab)</u>

Rebecca Perlman

Jan 16 2024 - May 03 2024

W

12:00 pm - 1:59 pm

Social Sciences Building 791

Class #:13590

Units:4

Instruction Mode: In-Person Instruction

No Open Seats

The seminars will generally be led by ladder-rank faculty members in the subfields of Political Theory, Area Studies, American Politics, International Relations, and Comparative Politics. These intense writing seminars will focus on the research area of the faculty member teaching the course. The seminars will provide an opportunity for students to have direct intellectual interactions with faculty members while also giving the students an understanding of faculty research.

Environmental Issues

Spring 2024

LS C30V_001 - LEC 001 offered through Undergraduate Interdisciplinary Studies(opens in a new tab)

Ronald G Amundson

Jan 16 2024 - May 03 2024

Tu, Th

2:00 pm - 3:29 pm

Hearst Field Annex A1 (opens in a new tab)

Class #:17921

Units:4

Instruction Mode: In-Person Instruction

Open Seats

1 Unreserved Seats

Also offered as: ESPM C10

What is the "environment"? Not what students may initially think, nor may they fully realize how central the question is to what is important to them, to their present and future happiness, and to the life they may aspire to have when they are 50. In ESPMC10 (a L&S Discovery Course, LSC30), we examine the facts, myths, and misconceptions about scientific knowledge and how it is received and filtered by all of us. We acknowledge we are all psychologically hardwired in ways that imped our acceptance of challenging information We consider the additional deliberate attempts at scientific misinformation for political or ideological purposes, and the role of government censorship of information. It is within this complex landscape of information and its manipulation that the major environmental issues of our time – food production, energy/climate change, urbanization/consumer goods production and consumption – are evolving. We try to examine these issues carefully, dispelling or exposing, where we can, the many fallacies promoted by both adherents and opponents of any given issue. The rejection of fact, we learn, is a very bi-partisan activity. Our environment, as we discover, plays an enormous role in our happiness and well-being, and in the well-being of nations. We examine the changing face and participants in environmental fatigue, and environmental anxiety.

The Great Disinflationary Period and the Future of the Global Economy

Spring 2024

SOCIOL 190_001 - SEM_001 offered through Sociology(opens in a new tab)

Armando O Lara-Millan

Jan 16 2024 - May 03 2024

Μ

4:00 pm - 5:59 pm

Dwinelle 87 (opens in a new tab)

Class #:13497

Units:4

Instruction Mode: In-Person Instruction

Open Seats

12 Unreserved Seats

Consent of department required for enrollment.

There is much confusion among economists, the business media, and other observers about how best to characterize the continuity and discontinuities of the past 40 years with our current political-economic moment. Many point to the continued politics of "neoliberalism" or the use of political rhetoric of free markets to mask politically supported profiteering. Others to the continued role of "financialization" or advent of profits primarily via arbitrage and speculation over product sales. Still others place emphasis on "hyperglobalization" or the increase of global trade from 39% of world GDP in 1990 to 51% in 2000. This class rethinks the past forty years of global economic activity and explores how it is undergoing drastic, but underappreciated changes in the current moment. It considers the rise of labor costs in China, India, and Vietnam, a turn from cheap to expensive energy and mineral costs, the global slowdown of internet user growth, the end of corporate tax cuts and easy corporate borrowing in the West, and finally the uncertain effectiveness of "performative" central bank policy. Students will be tasked with understanding the global economy from a sociological perspective, one that emphasizes the iteration between ideas about the economy and the way economies can change ideas. By the end of the class, students should be able to effectively interpret current news about the economy and develop an opinion on whether they are optimistic or pessimistic in our ability to mee the social, political, and climate challenges of the next decade.

Responding to Eco Apocalypse

Spring 2024

COLWRIT R4A 12 - SEM 12 offered through College Writing Programs(opens in a new tab) Mary Grover Jan 16 2024 - May 03 2024 M, W, F 11:00 am - 11:59 am Internet/Online Class #:22946 Units:4

Instruction Mode: Online

No Open Seats

We are now experiencing what some might call harbingers of eco-apocalypse: rampant wildfires, hurricane proliferation, crop-annihilating drought and floods, famine. Meanwhile, political, scientific and social communities struggle to respond productively, even while vulnerable peoples suffer the brunt of climate change and its ecological fallout. What are the consequences of environmental depredation? What are the causes? What should or can we do? How bleak is the outlook? In this course, we will make sense of our predicament, discussing and analyzing non-fiction texts, children's books, academic articles, and news articles. BOOK LIST: "The Future We Choose" by Christiana Figueres and Tom Rivett-Carnac "Apocalypse Never" by Michael Shellenberger "Shark Lady" by Jess Keating "Pangolina" by Jane Goodall "Zonia's Rain Forest" by Caldecott Honor Winter "We Are Water Protectors" by Carole Lindstrom "One Plastic Bag" by Miranda Paul

Eco Art: Art, Architecture, and the Natural Environment

Spring 2024 <u>HISTART 105 001 - LEC 001</u> offered through <u>History of Art(opens in a new tab)</u> Sugata Ray Jan 16 2024 - May 03 2024 Tu, Th 3:30 pm - 4:59 pm <u>Moffitt Library 102 (opens in a new tab)</u> Class #:31543 Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Nuclear disasters. Acid rain. The mass extinction of animal and plant species. The environmental crisis that the planet faces today has fundamentally transformed the way we perceive human interaction with the natural environment. What can art, architecture, sustainable design, urban planning, cinema, and performance practices offer to current debates on climate change and environmental justice? Bringing together the arts and the sciences, the course will examine the role of visual and urban cultures in shaping economic, political, engineering, agricultural, and scientific experiments centered on the earth's ecosystem in the past and in the present. We will analyze key ecological concepts such as energy flow,

waste, technology, conservation, and environmental politics as it relates to global visual and urban cultures. Case studies will range from North American Indigenous arts to Asian gardens, from colonial medicine to eco-activism in the Global South, from Renaissance experiments in botany to biotech, from urban planning in the ancient world to contemporary green infrastructure. Field trips will include sustainability projects on campus and in the Bay Area. No prior coursework in either art history or environmental science is required. This course fulfills the following Major requirements: Geographical area (E), and Chronological period (I) or (II) or (III), based on the topic of the final research paper or project.

The Age of Anxiety: Fear in Society

Spring 2024 <u>SOCIOL 190 003 - SEM 003</u> offered through <u>Sociology(opens in a new tab)</u> Edwin K Lin Jan 16 2024 - May 03 2024 Tu 2:00 pm - 3:59 pm <u>Hearst Gym 242 (opens in a new tab)</u> Class #:13498 Units:4

Instruction Mode: In-Person Instruction

Open Seats

4 Unreserved Seats

Consent of department required for enrollment.

Fear plays an increasingly important role in our society. We see it in our media and our politics. It affects our thoughts about climate change, COVID-19, and the future. We see its effects on our mental health and our relationships. As a result of this rise of fear in the 21st century, some sociologists have argued that we need a better sociological approach to understanding fear in society. In this class, we will explore the age of anxiety using sociological concepts to understand fear and anxiety and the roles they play in society.

Literature of Destruction

Spring 2024 <u>SLAVIC R5A 003 - LEC 003</u> offered through <u>Slavic Languages and Literatures(opens in a new tab)</u> Robyn M Jensen, Michael Tobias Lerner Jan 16 2024 - May 03 2024 Tu, Th 8:00 am - 9:29 am Social Sciences Building 140 Class #:31393 Units:4

Instruction Mode: In-Person Instruction

Open Seats

12 Unreserved Seats

The modern world we live in seems to be a constant procession of overlapping and intersecting catastrophes. From climate change to the Covid-19 pandemic, it appears that we are living in a unique historical period. However, to truly understand the world of crises we currently inhabit, one must look back. The Russian and Yiddish literary traditions provide just such a means of seeing how culture preserves the scars of tragedy, along with testimonies of survival and perseverance which inspire us today. To think about how culture responds to historical catastrophe, Russian and Yiddish literature make for a good comparison. Both traditions predominantly developed in Eastern Europe and responded to many of the same, or co-occurring, historical events. By the late 19th century, many Yiddish writers were actively turning to models developed in the Russian literary tradition, and many Russian writers were grappling with the social injustices which Jews faced in the Russian Empire through their prose. However, despite their similarities, Russian and Yiddish literature developed distinct forms for representing and responding to historical catastrophe. This course will look at the broad arc of Russian and Yiddish literature's reaction to moments of destruction and rupture throughout history. Starting with the Book of Lamentations, we will then turn to an investigation of texts which primarily respond to the historical catastrophes of the modern era including the pogroms of the late 19th century, the Holocaust, and the Gulag. Throughout the course we will ask ourselves the questions: how do writers develop and adopt literary forms in depicting historical catastrophe? How do literary texts work with and present the dynamics of cultural memory and collective trauma? How do ideas such as messianism and millenarianism inform our understanding of historical catastrophe? Authors may include Nikolai Gogol, Lev Tolstoy, Anton Chekhov, Maxim Gorky, Isaac Babel, I.B. Singer, Lamed Shapiro, and Varlam Shalamov. The focus of this course will be academic writing and literary analysis. By the end of the class students should be able to produce short and medium length compositions which are tightly argued, text-based, and stylistically appropriate. Students will also learn how to closely read texts, place texts in their appropriate cultural and historical contexts, and utilize concepts foundational to literary analysis such as: genre, style, point-of-view, figurative language, and intertext.

Writing the American City: Redlining to Gentrification

Spring 2024 <u>ENGLISH R1B 028 - LEC 028</u> offered through <u>English(opens in a new tab)</u> Balthazar I Beckett Jan 16 2024 - May 03 2024 Tu, Th 8:00 am - 9:29 am <u>Wheeler 122 (opens in a new tab)</u> Class #:33860 Units:4

Instruction Mode: In-Person Instruction

No Open Seats

The American city is an incredibly complex and dynamic organism—and the subject of a great body of literature—both fiction and non-fiction. This course will trace and critically engage how American urban development has been written about from the early twentieth century to today. We will follow how writers have addressed the dramatic changes that American urban spaces underwent from the progressive era, turn-of-the-century segregation and the experience of the Great Migration to redlining, white flight, and suburbanization in the wake of the New Deal. Studying metropolitan areas across the

nation, from New York City to the Bay Area and from Chicago to New Orleans, this course asks students to write critically about urban development from the battles over "urban renewal" and the anti-eviction campaigns of the Civil Rights era to the impact of 1970s neoliberal policies, the "war on drugs" and militarized "broken windows" policing, and the urban uprisings of the early 1990s. We will end this semester by studying how writers address the impact that hyper-gentrification and climate chaos (from disaster capitalism to grassroots organizing) have on American cities today. Building on the skills students acquired in R1A, this course will continue to develop reading, writing, and research skills with the aim to practice writing longer essays that are rhetorically aware and partake in relevant scholarly conversations. Over the course of this semester, students will submit two shorter essays, before concluding the course by submitting a research paper in which they will partake in a scholarly debate that they feel passionate about. Course readings: · Marshall, Paule. Brown Girl, Brownstones. Mineola, NY: Dover Publications, 2009 [1959]. ISBN-13: 978-0486468327. · Yates, Richard. Revolutionary Road. New York: Vintage, 2000 [1961]. · Eggers, Dave. Zeitoun. New York: Vintage (Random House), 2010. ISBN-13: 978-0307387943. · Revoyr, Nina. Southland. New York: Akashic Books, 2003. · Lethem, Jonathan. The Fortress of Solitude. New York: Vintage, 2004 [2003]. ISBN-13: 978-0375724886. Selections from other fictional and non-fictional texts will be made available online. These will include texts by James Baldwin, Toni Cade Bambara, Marshall Berman, Mike Davis, Ashley Dawson, Amitav Ghosh, Jane Jacobs, Naomi Klein, Jonathan Lethem, Dawn Bohulano Mabalon, Jodi Melamed, Peter Moskowitz, Suleiman Osman, Nathaniel Rich, Richard Rothstein, Roy Scranton, Nayan Shah, Anna Deavere Smith, Rebecca Solnit, John Edgar Wideman, and Craig Wilder. Films include Spike Lee's Do The Right Thing and Joe Talbot's The Last Black Man in San Francisco.

Approaches and Paradigms in the History of Rhetorical Theory II

Spring 2024 <u>RHETOR 103B 001 - LEC 001</u> offered through <u>Rhetoric(opens in a new tab)</u> Samera Esmeir Jan 16 2024 - May 03 2024 Tu, Th 9:30 am - 10:59 am <u>Mulford 159 (opens in a new tab)</u> Class #:17063 Units:4

Instruction Mode: In-Person Instruction

Open Seats

34 Unreserved Seats

The world is in trouble. From the intensification of extreme economic inequalities and forms of racist exclusion to the climate catastrophe and the collapse of justice horizons, many populations are now facing further devastation and destruction, and others are beginning to share in that experience. It is said that this juncture is not temporary but a structuring condition. And as we attempt to make sense of this world, meaning itself appears to be in crisis. With what critical tools do we understand and engage the world at this juncture? How do we examine it and analyze the rhetorics around its myriad processes and events? Do we limit ourselves to the description of the events, or do we deploy theoretical tools that could help us receive and understand this world more critically? A sense of trouble (in language and meaning, but also in politics, the economy, the psyche, and the earth) is constitutive of so much modern rhetorical theory. Therefore, this course approaches it as a resource for thinking through this moment. To this end, the course surveys key theoretical texts from the late nineteenth into the early twenty-first century, which

shed light on how meaning is produced and interrogated in modernity. One of the key accomplishments of the modern era is the development of critical stances that question the appearance, objectivity, and naturalness of texts and acts. These stances also reveal the power operations of texts and things. We examine the making of these stances: how they came to be, their attention to power, and their intellectual and political consequences. What are the modes of thinking, reading, and interpretation that have been consequently introduced? How have they changed, and what of them remains available to us today? We begin with Marx's critique of ideology and end with the approaches that question the divisions between the human, natural, and technological. Other theorists will help us grasp the relationship between discourse and power, the powers of slavery and colonialism, bodies and their extensions, the psyche as an archive, the workings of technology, and questions of resistance and struggle.

Energy and Climate Policy in China

Spring 2024 ENVECON 170 001 - SEM 001 offered through Agricultural and Resource Economics and Policy(opens in a new tab) Jiang Lin Jan 16 2024 - May 03 2024 W 11:00 am - 11:59 am Giannini 141 (opens in a new tab) Class #:15341 Units:1

Instruction Mode: In-Person Instruction

No Open Seats

The course will present scholarly review of historical and on-going energy and climate policy topics in China, with a broad goal of gaining understanding the relationship between energy, economic development, and climate change in the largest emerging economy, China.

An Interdisciplinary Approach to Land Development and Investment

Spring 2024 <u>PUBPOL 290 023 - LEC 023</u> offered through <u>Richard and Rhoda Goldman School of Public Policy(opens in a</u> <u>new tab)</u> Ashley Weinstein-Carnes, Evan Schwimmer Jan 22 2024 - Apr 23 2024 M 6:30 pm - 9:29 pm UC LAW 170 Class #:28848 Units:3

Instruction Mode: In-Person Instruction

Open Seats

1 Seats Reserved for Graduate Students in the Goldman School of Public Policy

We all interact with the built environment and real estate development on a daily basis – homes, schools, workplaces, infrastructure, and transit – although most aren't familiar with how these key features become a reality. How are building projects conceived, designed, approved, financed, constructed, and sold or leased? How does development relate and respond to public policy, the physical environment, and social equity? This interdisciplinary course is designed to ask and answer these questions. The course is intended for business, law, planning and design, and public policy students interested in learning the land and real estate development process, with a specific focus on California development. This course delves into the considerations behind decision-making within each development phase, including the intersection of local, state, and federal laws; planning, design and engineering; sustainability and climate change; politics and policy; and financing and relevant economic factors. In addition, we will consider the role and impact of various stakeholders on the real estate development process, including elected officials, municipal staff members, regulators, investors, community members, and opposition groups. To that end, the course will feature frequent guest lecturers who are some of the Bay Area's leading experts in the deal-making, land use, development, urban planning and design, environmental review and mitigation, and investment fields. The primary focus of this course is practice rather than theory. On a weekly basis, it will be mandatory for students to participate in interdisciplinary study groups to work together to resolve real-world land use and real estate problems. Students will meet via video chat, or ideally, in person to discuss and prepare responses to the weekly study questions. Law students will learn to evaluate business risks, while business, planning, and public policy students will gain a conceptual framework for understanding legal issues that are critical to the real estate development, land entitlement and deal making process. Whether you seek to have a career as a lawyer, developer, financier, planner, or policymaker; or just want to better understand the built environment and its evolution over time, this course will challenge your assumptions and broaden your perspective. This goes toward satisfying the requirements of the Interdisciplinary Graduate Certificate in Real Estate, offered through the graduate programs at the Haas School of Business, Berkeley School of Law, and the College of Environmental Design (including MRED+D) This course follows the start and end date of the Law School: 1/8/24 to 5/8/23. Check your CalCentral for the updated day/time/location.

Island and Coral Reef Resilience and Ecosystem Services

Spring 2024

ESPM 109A 001 - LEC 001 offered through Environmental Science, Policy, and Management(opens in a new tab) George K Roderick Jan 16 2024 - May 03 2024 Off Campus Class #:15410 Units:3

Instruction Mode: In-Person Instruction

Open Seats

6 Unreserved Seats

Consent of instructor required for enrollment.

Students will learn the fundamentals of island and reef biology, geology, marine ecology and their interconnectedness, as well as the physical and biological forces shaping and maintaining these ecosystems. The course will involve a significant amount of time in the field to expose students to the different island habitats and explore the ecosystem services provided by island habitats to local peoples and beyond. Students will interact directly with local people to learn about local perspectives on the value of these systems.

Challenge Lab: Designing Startups to Transform Society | A Berkeley Changemaker[®] Course

Spring 2024 <u>ENGIN 183C 004 - SEM 004</u> offered through <u>Engineering(opens in a new tab)</u> Anita Balaraman Jan 16 2024 - May 03 2024 M, W 2:00 pm - 3:59 pm <u>Wheeler 212 (opens in a new tab)</u> Class #:16483 Units:4

Instruction Mode: In-Person Instruction

No Open Seats

Al and automation have significantly changed the way business is done. We are in the Fourth Industrial Revolution and have the opportunity to harness converging technologies to create an inclusive humancentered future. This course asks students to envision solutions that leverage tech to intentionally promote equitable economic mobility and to transform systems to benefit society. Students in the Designing Startups to Transform Society Challenge Lab will be immersed in an entrepreneurial journey to discover and develop disruptive business models for transforming society, addressing sustainability, and reimagining the future of work. From access to jobs, job skills, and upskilling, to innovative approaches to transforming education, climate, government, and businesses for the good of society, we need solutions that leverage technology to accelerate positive impact. Students will develop an understanding of the value and velocity of AI and disruptive technologies, understand the frameworks of 'specialized' vs 'generalized' intelligence; and explore ethical and inclusive innovation design. Students will explore complex societal challenges and invent startup solutions that leverage digital tech (e.g. data, ML, AI, IoT); prototype solutions; and explore customer 'value' models; all while gaining equal fluency in the cultural values and ethical principles that should ground and govern how these tools are designed and used.

Climate and Energy Policy

Spring 2024 ESPM 102D 001 - LEC 001 offered through Environmental Science, Policy, and Management(opens in a new tab) Abigail Noelle Martin Jan 16 2024 - May 03 2024 Tu, Th 5:00 pm - 6:29 pm Mulford 159 (opens in a new tab) Class #:15390 Units:4 Instruction Mode: In-Person Instruction

No Open Seats

This intermediate level course engages with both the politics and the design of climate and clean energy policy, with a focus on the United States. Key themes include political strategies to climate change, the choice of policy instruments, the role of various state actors and interest groups in policy making, the interaction of policy and low-carbon technology markets, and the US and global politics. The course combines the study of analytical concepts with in-depth case studies.

Extreme Weather and Climate

Spring 2024 EPS 81 001 - LEC 001 offered through Earth and Planetary Science(opens in a new tab) William R Boos Jan 16 2024 - May 03 2024 M, W, F 3:00 pm - 3:59 pm Latimer 120 (opens in a new tab) Class #:22577 Units:3

Instruction Mode: In-Person Instruction

Open Seats

68 Unreserved Seats

This course provides a fundamental understanding of the extreme weather and climate variability that have affected Earth in recent decades. We begin with an overview of fire weather and hurricanes, using these phenomena to explore general principles that are also relevant to drought, tornadoes, and other extreme weather. Then we examine how atmospheric composition, planetary orbits, and radiation control global climate, and how all of these influence extreme weather. Additional topics include prediction of complex systems, chaos theory, feedbacks, instability, atmospheric aerosols, and air pollution. We use the atmospheres of other planets for comparison, learning more about Earth by seeing just how different planetary climate can be.

How to be a Rausser CNR Scientist: Creating a Climate of Inclusion

Spring 2024 NATRES 76 001 - SEM 001 offered through Rausser College of Natural Resources(opens in a new tab) Kate ONeill Jan 16 2024 - May 03 2024 Tu 2:30 pm - 3:59 pm Mulford 132 (opens in a new tab) Class #:33163 Units:1 Instruction Mode: In-Person Instruction

No Open Seats

Do you want to take part in research in RCNR or on campus as a whole, but are unsure of how or where to start? This course is designed for students who would like to explore their own identity as scientists at Rausser College and learn how to best access opportunities for research, internships, and jobs. Through this course, students develop a network of supportive peers, tour laboratory facilities, connect with RCNR faculty & staff, learn about campus resources, and explore & practice skills in communication & professionalism. Class conversations will also include understanding the structure of the university, the inclusiveness (or not) of its systems and structures, and using scientific resources to think critically not only about the science (physical, social, biological), but about whose scientific voices may be prioritized or silenced. Course content administered by the RCNR Office of Instruction and Student Affairs. A central course tenet is a commitment to bolstering equity and inclusion in science, encouraging students to question stereotypes about scientific identity. Space is limited and priority will be given to first year RCNR students. Students who qualify for Educational Opportunity Program (EOP) services are strongly encouraged to apply. Students must first fill out the NATRES 76 Interest Form and then add themselves to the waitlist for the class. Both steps, submitting the form and adding to the waitlist, are required for enrollment consideration. Spring 2024 Interest Form: https://forms.gle/Vuf6v3BA9e8i88eh6

From Imagination to Innovation: Activating creativity for transformational change

Spring 2024 <u>THEATER 100 001 - STD 001</u> offered through <u>Theater, Dance, and Performance Studies(opens in a new tab)</u> Lisa Wymore, David Allen Rochlin Jan 16 2024 - May 03 2024 Tu, Th 10:00 am - 11:59 am <u>Jacobs Hall 310 (opens in a new tab)</u> Class #:32992 Units:3

Instruction Mode: In-Person Instruction

Open Seats

6 Unreserved Seats

It is often said, "If you can dream it, you can do it." But how do you ignite and harness your imagination - the inspiration for your dreams? And once you have a dream, what does it take to innovate – to turn the dreaming into doing and bring it to life? The class explores these topics and provides practice in innovation as not only a mindset, but also a process involving a series of tools and steps that can guide us in making ethical change in the world. Through hands-on, project-based exercises, this course will teach students to put their imaginations into action to better observe, frame, critique, make, and reflect upon their ideas for change. Envisioning and making change in the world is a complex, multifaceted, and interdisciplinary process that calls upon a wide array of skills including creative and critical thinking capabilities. For that reason, this class is part of both the Big Ideas and Berkeley Changemaker curriculum. The course objectives include: (1) teaching students to access and build upon their creative potential, and, (2) guiding students in developing both a team and individual frameworks and processes for change. Both of these objectives will enable students to think both creatively and critically about what could be, rather than

what is, in order to bring to life what can be imagined. Whether your goal is an art project, start-up, a new approach in the lab, an AI application, or just to make the world a better place, this course will provide methods to activate your entire mind and body, as well as the techniques and skills you need to innovate and create change. The class instructors will co-teach, and we will invite guest lecturers and students from different parts of the campus into the class for inspiration and to open new avenues for exploration.

The Political Economy of Sustainable Development & Urbanism

CYPLAN 290 00D - SEM 00D offered through <u>City and Regional Planning(opens in a new tab)</u> Emmanuel Frimpong Boamah Jan 16 2024 - May 03 2024 M, W 11:00 am - 12:29 pm <u>Wurster 214B (opens in a new tab)</u> Class #:33000 Units:3

Instruction Mode: In-Person Instruction

Open Seats

2 Seats Reserved for Students with Enrollment Permission

7 Seats Reserved for Master of City & Regional Planning Students

This graduate seminar explores issues, trends, and debates in globalization, development, and urbanism, especially in Global South contexts. It focuses on how international planning and development policies influence socio-spatial disparities and inequities. The first half of the seminar will focus on the history, theories, and governance structures undergirding international development and

HydroClimate Modeling

Spring 2024 ESPM 290 004 - SEM 004 offered through Environmental Science, Policy, and Management(opens in a new tab) Inez Y Fung Jan 16 2024 - May 03 2024 Tu 2:00 pm - 3:59 pm Hilgard 251C (opens in a new tab) Class #:29011 Units:1 to 4

Instruction Mode: In-Person Instruction

Open Seats

11 Unreserved Seats

We will read classic literature about the critical components that determine regional hydroclimate variations and how these components are represented in global Earth System Models. These components include, among others, energy balance, internal climate variability, cloud processes, land surface modification, teleconnections.

Financial Economics of Climate and Sustainability

Spring 2024 PHDBA 297T 006 - LEC 006 offered through Walter A. Haas School of Business(opens in a new tab) Adair Morse, Panos N. Patatoukas Jan 30 2024 - Apr 23 2024 Tu 8:00 am - 9:59 am Internet/Online Class #:29098 Units:0.5 to 3

Instruction Mode: Online

Open Seats

17 Unreserved Seats

Advanced study in the field of Business Administration. Topics will vary from year to year and will be announced at the beginning of each semester.

Structural Bioinformatics and Data Science

Spring 2024 <u>BIOENG 190 003 - LEC 003</u> offered through <u>Bioengineering(opens in a new tab)</u> Taner Sen Jan 16 2024 - May 03 2024 F 10:00 am - 11:59 am <u>Moffitt Library 103 (opens in a new tab)</u> Class #:31853 Units:2

Instruction Mode: In-Person Instruction

No Open Seats

The goal of this class is to learn cutting edge research topics in computational biology including structural bioinformatics and data science, develop critical scientific skills to evaluate published literature, and enhance student skills in scientific communication. The class uses exemplars from genetics and climate-impacted agriculture.

Community Organizing

Spring 2024 SOCWEL 255 001 - LEC 001 offered through School of Social Welfare(opens in a new tab) Eveline S Chang Jan 16 2024 - May 03 2024 M 12:00 pm - 1:59 pm Haviland 4 (opens in a new tab) Class #:27379 Units:2

Instruction Mode: In-Person Instruction

Open Seats

27 Seats Reserved for Social Welfare: Graduate Students

Introduction to the theory and practice of community organization.

Leadership & Social Change

Spring 2024 <u>SOCIOL 119L 001 - LEC 001</u> offered through <u>Sociology(opens in a new tab)</u> Joseph Klett Jan 16 2024 - May 03 2024 M, W, F 9:00 am - 9:59 am Anthro/Art Practice Bldg 160 Class #:22858 Units:4

Instruction Mode: In-Person Instruction

Open Seats

48 Unreserved Seats

Leadership has many meanings in society. What works well in one context cannot always be applied in another. And contexts have history. What works well in one domain does not necessarily work for all time. In this course we will reflect on the meaning of leadership in society. Our focus will be modern ideas of leadership, and how these ideas evolved, succeeded or failed in moments of social change. We will read in the area of organizational sociology with a focus on interactions, institutions and culture. In addition, we will consider work from political science, management studies and history as we attempt to unravel what leadership looks like across a variety of social domains in different states of change.

Global China

Spring 2024 <u>GEOG 164 001 - LEC 001</u> offered through <u>Geography(opens in a new tab)</u> Crystal Chang Jan 16 2024 - May 03 2024 Tu, Th 12:30 pm - 1:59 pm <u>Dwinelle 205 (opens in a new tab)</u> Class #:20182 Units:3

Instruction Mode: In-Person Instruction

No Open Seats

This course focuses on four issues in contemporary China: (1) the transformation of the socialist state, (2) the environmental politics, (3) the interplay of gender and class in the transitional society, (4) urban expansion and the changing rural-urban dynamics, and (5) global China. Each of these issues will be examined with reference to critical theories of development and histories of China's modernization. This is a lecture course designed mainly for upper level undergraduate students with preliminary background in East Asian-Chinese studies or development studies.

Strategic Planning & Organizing for a Sustainable Innovation Zone in Oakland

Spring 2024 <u>CYPLAN 190 003 - LEC 003</u> offered through <u>City and Regional Planning(opens in a new tab)</u> Marc Weiss Jan 16 2024 - May 03 2024 M, W 9:00 am - 10:59 am <u>Wurster 214B (opens in a new tab)</u> Class #:33136 Units:4

Instruction Mode: In-Person Instruction

Open Seats

1 Seats Reserved for Urban Studies Majors with 5 or more Terms in Attendance

3 Seats Reserved for College of Environmental Design Students with 5 or more Terms in Attendance

2 Seats Reserved for Students with Enrollment Permission

2 Seats Reserved for Students with 7 or more Terms in Attendance

In this studio course, students will engage in strategic planning and organizing for an Oakland Sustainable Innovation Zone (OSIZ), similar to the Porto Alegre Sustainable Innovation Zone (ZISPOA) in Brazil,

Wheaton Sustainable Innovation Zone (WSIZ) in Montgomery County, Maryland, Poznan Sustainable Innovation Zone (EDIT Poznan) in Poland, and several others

Data Science: Urban Transitions to Carbon Neutrality

Spring 2024 <u>CYPLAN 190 002 - LEC 002</u> offered through <u>City and Regional Planning(opens in a new tab)</u> Nader Afzalan Jan 16 2024 - May 03 2024 Tu 4:00 pm - 6:59 pm <u>Wurster 106 (opens in a new tab)</u> Class #:12731 Units:3

Instruction Mode: In-Person Instruction

Open Seats

1 Seats Reserved for Urban Studies Majors with 5 or more Terms in Attendance

10 Seats Reserved for Students with 3 or more Terms in Attendance

5 Seats Reserved for Students with Enrollment Permission

5 Seats Reserved for Minors in City & Regional Planning with 5 or more Terms in Attendance

Data science has become a key element for creating carbon-neutral cities and regions. Planners and policy makers should more effectively access and use data and technologies for shaping climate responsive cities that are equitable and resilient. This course introduces using data science for developing plans and policies that support creating just and carbon-neutral cities.

Sustainable Investment Fund (Haas)

COURSE NUMBER: MBA292J.1

SEMESTER: Spring 2024

COURSE TITLE: Haas Sustainable Investment Fund (SIF)

UNITS OF CREDIT: 2

INSTRUCTOR: Jillian Grennan

EMAIL: jillian.grennan@berkeley.edu

PREREQUISITES: Financial Information Analysis and Evaluation (FIA), Sustainable Portfolio Construction

CLASS FORMAT: This is an experiential course with highly engaged student Principals making decisions on the Sustainable Investment Fund's \$4 million corpus and deliver proceeds for impact-focused projects that

serve the greater Haas community. Faculty will provide some instruction on integrating sustainable considerations into fundamental investment decisions, there will be guest speakers and treks to visit companies and fund managers, and the bulk of the work will be student led discovery on compelling, values aligned investments for the Fund's short, medium and long term objectives. Initiative, commitment, and interest will be critical to success in this class. Real money with real implications for Haas are at stake.

Climate Change and Business Strategy (Haas)

COURSE NUMBER: EWMBA292T.1/MBA292T.1

COURSE TITLE: Climate Change and Business Strategy

This course is dual-listed between the EWMBA and FTMBA programs.

UNITS OF CREDIT: 3 units

INSTRUCTOR: Andrew Isaacs

E-MAIL ADDRESS: isaacs@berkeley.edu

MEETING DAY(S)/TIME: Mondays; 6:00-9:30 PM PT

Privacy and Recording Notice

Sample Syllabus (FTMBA Spring 2023)

PREREQUISITE(S): None

CAREER FIELD: This course is intended for students with an interest in how climate change is impacting business, and how business sustainability depends both on mitigating climate impacts and on adaptation to ongoing climate change. While the course does not shy from using scientific terms, the material is easily accessible, and no prior familiarity with climate science is assumed. We will examine a range of approaches to business sustainability in the context of a changing climate, the actions that business can take to improve the climate outlook, and the emergence of a climate-aware economy. Students considering a career in Sustainability will benefit from the deep understanding of climate-related business issues that this course is intended to provide.

Plant Futures Challenge Lab (Haas)

COURSE NUMBER: MBA292T.22

COURSE TITLE: Plant Futures Challenge Lab

UNITS OF CREDIT: 3 Units

INSTRUCTOR: Nina Guilbeault; Brittany Sartor

E-MAIL ADDRESS: ninagheihman@berkeley.edu; brittanysartor@berkeley.edu

PREREQUISITE(S): MBAs enroll through OLR as part of Bidding or Add/Drop process

COURSE SYLLABUS: Copy of Fall 2023 Syllabus | Spring 2024 Course Flyer

CLASS FORMAT: Mix of virtual & in-person lecture and teamwork time. Must attend weekly meetings on Mondays from 2:00pm - 4:00pm PT and Final Showcase on April 29th from 12:00pm - 4:00pm PT.

REQUIRED READINGS: No required textbook. Readings posted on bCourses.

BASIS FOR FINAL GRADE: Quality of client deliverables and course assignments, attendance (lectures, team meetings, client meetings, and Final Showcase), participation, and peer evaluations.

CAREER FIELD: Interdisciplinary (Business, Public Health, Public Policy, Engineering, Environmental Science, etc)

ABSTRACT OF COURSE CONTENT AND OBJECTIVES:

The Plant Futures Challenge Lab is a special course that blends in-class learning with applied field experience. Top undergraduate and graduate students are paired on multidisciplinary teams to work with professional clients from leading food systems organizations to develop actionable solutions to presentday challenges in the plant-based food and agricultural sector. Students will be guided throughout the learning journey by the teaching team and their challenge partner mentors through a series of team meetings, lectures, and workshops and will learn and practice systems thinking and design, ethical leadership, and entrepreneurial agency.

Haas Impact Fund (Haas)

COURSE NUMBER: MBA292T.7

COURSE TITLE: Berkeley Impact Venture Partners: Investing

UNITS OF CREDIT: 1

INSTRUCTOR: Adair Morse, Julia Sze

EMAIL: morse@haas.berkeley.edu, juliawsze@berkeley.edu

PREREQUISITES: Impact Finance and Entrepreneurship or New Venture Finance (or equivalent experience)

CLASS FORMAT: Experiential course with 10 hours of lecture time, faculty oversight, and student led research on promising early stage companies for BIVP 2.0 Fund investment. Student experience directly proportional to effort and initiative.

ABSTRACT OF COURSE'S CONTENT AND OBJECTIVES: Part of the new *Sustainable and Impact Finance Initiative*, this course will provide classroom instruction on sourcing and diligencing early stage social enterprises, and will allow students to create an investment thesis, develop their investment networks, source promising ideas, diligence the companies and their founders, and present these companies at the end of the semester at a campus-wide "Pitch Day". External judges and experienced early stage investors will provide feedback and recommend the top companies for seed stage to Series A investment from the BIVP 2.0 Fund. This course is designed to provide students with the tools and experience to evaluate both the financial and impact proposition of social enterprises, and be able to present the opportunities and risks of investing in these companies with conviction. Students should expect to take significant initiative in finding ideas from their own networks, Berkeley organizations and alum, and off-campus leads.

Energy and Environmental Markets (Haas)

COURSE NUMBER: MBA 212.1

COURSE TITLE: Energy and Environmental Markets

UNITS OF CREDIT: 3 Units

INSTRUCTOR: Lucas Davis

E-MAIL ADDRESS: Feel free to contact me directly with questions, www.lwdavis@berkeley.edu

INFORMATION FOR NON-MBA STUDENTS: This class is not listed in the UC Berkeley Academic Guide but may be taken by non-MBA currently-enrolled UC Berkeley graduate students. Spring 2023, I will be offering the class in both our full-time and evening-weekend programs. See <u>here</u> for instructions on how to request a seat.

PREREQUISITE(S): MBA-level Microeconomics (MBA201A) or undergraduate intermediate microeconomics is required. This is a class about economics. We talk about supply and demand, competition, market power, producer and consumer surplus, and related topics. This class is not a good choice if you haven't taken at least a solid undergraduate microeconomics course.

COURSE SYLLABUS: A recent syllabus is available <u>here</u>.

CLASS FORMAT: Classes are highly interactive and feature a combination of thought questions and discussion, in-class exercises, daily indicators presented by class participants, and participation in the Electricity Strategy Game (ESG). The ESG is an electricity market simulation in which each team owns a portfolio of generation units and bids those units into an electricity market. Teams must develop strategies to deploy their assets while accounting for the cost structure of their portfolio, varying levels of hourly demand, carbon policy, and the strategies of other players. In order to allow time in class for this interactive learning, I have recorded a collection of screencast videos featuring my voice over slides. These videos cover much of the foundational material for the course.

CAREER FIELD: This course is relevant for anyone interested in energy and environmental economics. This includes those working or planning to work in the energy sector, but also those outside the energy sector, but in roles related to energy procurement, environmental compliance, sustainability, and climate. In addition to MBA students, the course draws graduate students from across campus including the Goldman School of Public Policy, the College of Engineering, the Rausser College of Natural Resources, Berkeley Law, and other departments bringing viewpoints from many different perspectives.

The Economics of the Clean Energy Transition

ENVECON 147 001 - LEC 001 offered through Agricultural and Resource Economics and Policy(opens in a new tab) Meredith Lynn Fowlie Jan 16 2024 - May 03 2024 Tu, Th 12:30 pm - 1:59 pm Physics Building 2 Class #:14958 Units:4

Instruction Mode: In-Person Instruction

No Open Seats

The most promising path to deep decarbonization involves decarbonizing the electricity sector and then electrifying as much as we can – from transportation to buildings to industrial processes. This transition will require not only technological innovation, but also energy market reforms, climate policy interventions, and regulatory innovation to ensure that the process is fair, equitable, and affordable. This course draws from several fields of economics— environmental economics, energy economics, public economics, behavioral economics, and industrial organization — to help students understand how economic ideas and models can usefully inform and direct our response to climate change.