

EJ Education Group Whitepaper

*Describing and advocating for pedagogic strategies informed by Environmental Justice
values*



EJWG Education Team

Abstract

TBD

Student Voices from ES194

In Autumn Quarter 2022 our team surveyed undergraduate and graduate students enrolled in *ES194 Introduction to Environmental Justice: Race, Class, Gender and Place*. Throughout the course, students engaged with readings, guest speakers, and one another about a broad array of environmental justice focuses topics such as indigenous environmental justice, food justice, and energy justice. (Responses to the survey were anonymous.)

- “[The class] changed the way I think about environmental issues.” – ES194 student
- “This class has sparked my interest to engage more in communities that are important to me... local action is so powerful!” – ES194 student
- “One of the best classes I've taken, and also most valuable to what I want to do after graduating!” – ES194 student
- Describing the speaker series, a student said: “It was fantastic to hear from so many individuals working in the field and with such nuance and care.”
- When asked what they’d hope to see in future EJ classes, a student said: “A chance to volunteer with a local EJ issue...would be great to see the hands on example of EJ solutions.”

Background

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Student Voices from ES194

In Autumn Quarter 2022 our team surveyed undergraduate and graduate students enrolled in *ES194 Introduction to Environmental Justice: Race, Class, Gender and Place*.

- As for the pedagogy, 83.3% of survey respondents found small group discussions to enhance their learning, 77.8% of respondents found the final research project and op-Ed to enhance their learning, and 77.8% of respondents found the speaker series to enhance their learning!
- The majority of survey respondents identified the most salient core values of the class to be centering BIPOC and front-line community voices, valuing lived experience, intersectionality, and positionality.
- 94.4% of respondents would recommend the class to other students

Problem/Solution Statement

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Proposal

SUSTAIN 101 A, B, and C is a new three-quarter series offered through the Doerr School, designed to provide undergraduate frosh and sophomore students an essential toolbox for understanding and acting on environmental issues. Dean Arun Majumdar and Dean of Research Kam Moler taught the first iteration of SUSTAIN 101 A in Winter 2023: Decision Making for Sustainable Energy. Professor Noah Diffenbaugh will teach SUSTAIN 101C in the Spring: Climate 101.

The course, designed with curricular insight from Dr. Carl Wieman, professor of physics and education, focuses on helping students develop skills in critical thinking, complex decision-making, group problem-solving, and learning-by-doing. The course aims to engage students within and beyond the Doerr school, providing a foundational sustainability context that can inform their academic path and careers during and beyond Stanford.

The EJ Working Group, and hundreds of students and campus community members, believe that understanding environmental justice must be a crucial component of all courses on sustainability, especially introductory courses. Despite widespread and urgent student desire for more EJ content in Stanford introductory sustainability classes (see EarthSYS 10 Student Responses section), the current SUSTAIN 101A course syllabus only marginally includes EJ topics and teaching strategies (the word “justice” does not appear in the syllabus).

Herein lies an important opportunity for the Doerr School to respond to student feedback seeking a deeper introductory exposure to EJ. We propose that the Fall 2023 SUSTAIN 101 course be an environmental justice course.

The primary goal of this white paper is meant to help inform the creation of an EJ SUSTAIN101 course. It is a “how-to” manual on teaching EJ. It is designed to reach two audiences of potential instructors and guest lecturers of SUSTAIN 101: 1) instructors who already have EJ teaching and learning expertise, and who might find helpful additional strategies to improve their courses. There are a very small number of such instructors at Stanford. 2) instructors interested in and supportive of EJ, but who usually teach about a range of other sustainability topics and may be seeking additional resources and teaching tools to help them build out a more EJ-centered curriculum in their future teaching. We

hypothesize that many, if not most, of Doerr School instructors fit into this category, and thus may be more likely to be selected to help teach a EJ SUSTAIN 101 course.

A secondary goal of this white paper is to help other courses beyond SUSTAIN101 to more deeply integrate EJ. We aim for the following discussions of underlying EJ pedagogical frameworks, teaching methods, and example syllabi to be widely applicable to all sustainability-related courses across Stanford.

Defining an Environmental Justice Pedagogy

Environmental Justice Pedagogy must be grounded in a critical pedagogy that asks teachers and students alike to consider how our current systems maintain inequity and promote exploitation socially, economically, and environmentally. Within this, we need to explicitly teach the relationship between environmental racism and race and class discrimination; how various groups have resisted this discrimination by working in community; support students in recognizing the ways in which their own daily lives depend on commoditized relationships and activities; push students to consider how their own communities and those of non-commoditized traditions of ethnic or indigenous minorities still rely on face-to-face and intergenerational knowledge and skill-sharing; ensure students understand how these communities have been able to fight economic and political repression because of their independence from consumerism; and foster an ethic of considering and prioritizing our collective responsibility towards future generations. While it may be easier to teach these topics in a one-off, isolated kind of way, EJ pedagogy, drawing on antiracist pedagogy, is not a “one-week” or “one unit” topic. Instead, it is woven into the very fabric of the course content, instructor preparation, and teaching methods.

Feminist, indigenous, and antiracist pedagogies see the learning process as a co-production of knowledge, thus challenging the dynamic of teacher as expert and learner as recipient. In this way, students should have agency over their learning, be part of decision-making processes in the classroom, and should engage metacognitively about their learning throughout their learning to make deeper meaning, returning back to previous content in a cyclical way to refine and further deepen understanding.

Further, antiracist and feminist pedagogy asks students to analyze the intersectionality of power and privilege as it relates to race, class, gender, sexuality, ability, and nation. It is acknowledged that this kind of critical pedagogy can cause anxiety, depression, and helplessness that may lead to stagnation. Instead, we can channel some of that “practical anxiety” into critical community-engaged learning (CEL), which helps foster student agency and empower students with tools that build solutions. Critical CEL makes learning deeper, more real, and more holistic while helping to alleviate this immobilization. Analyzing the intersectional dynamics of the CEL will ensure it does not reinforce a

problematic “missionary” or “service” relationship.

Learning from Indigenous Pedagogy and frames for environmental education, we see that Environmental Justice pedagogy should ensure cultural and identity safety so that students can learn from and actively listen to each other in order to co-construct their learning through narratives, stories, dialogue, and conversation. Simultaneously, EJ Pedagogy should also have students engage in personalized, experiential learning where they are challenged creatively, physically, and emotionally to better understand themselves in relation to what and how they’re learning. This can include hands-on, kinesthetic activities and assessments.

Finally, EJ pedagogy must center antiracist pedagogy, which does all of the above while also focusing on the importance of the teacher themselves. Teachers, instructors, and professors who teach EJ must also be committed to interrogating their own identities, positionalities, and personal and family histories. Only through this authentic personal interrogation will instructors be equipped with the dispositions and skills to adequately and effectively facilitate these conversations with their students. This is lifelong work.

Relevant Pedagogic Frameworks

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Critical Community engaged learning

At primarily white institutions (PWI’s), EJ education should embody a Freirian critical theory that firmly asks students to interrogate and challenge systems of oppression that maintain Indigenous erasure, structural racism, exploitative capitalism, and environmental racism. At PWIs, some students may be doing this for the first time, and this kind of awakening can cause grief and anxiety that, without care, can lead to feelings of helplessness and resignation. To combat these feelings that can stall important solutions, critical CEL is an important lever to promote student agency towards solution-based outcomes, but it is important that CEL partnerships are thoughtfully and carefully built-out and structured so that they do not reinforce paternalism.

Feminist pedagogy

Feminist pedagogy is an approach that “values student voices, creates active learning spaces in which marginalized voices are heard, emphasizes collaboration and the co-production of knowledge, and foregrounds intersectional critical analysis that addresses the complex matrix of race, ethnicity, class, gender, ability, sexuality, and nation, while emphasiz[ing] feminist praxis and a collective effort toward progressive social change” (Berila 2006). Further, feminist pedagogy relies on a “co-production of knowledge [that]...recognizes both students and teachers as knowers and learners. Resisting the more traditional hierarchical and one-directional idea that the teacher distributes knowledge, feminist

pedagogy recognizes that students have a great deal to offer the learning experience.” Berila discusses the importance of community-engaged research, which makes learning richer and more real for students, while discussing how analyzing the dynamics of this relationship from an intersectional perspective can help to mitigate problematic “missionary” or “service” endeavors. Ultimately, Berila posits that all of these facets of feminist pedagogy can and should be incorporated into the teaching of environmental justice, and the 3 articles this introduction introduces do just that.

Land-centered pedagogy

Land education challenges the underlying assumptions of place-based education, which argues for “using the environment as an integrating context can improve test scores, enhance citizenship, and improve the quality of the local environment.” While these sound like excellent outcomes, we must refuse to view the environment simply as an integrating context or passive subject, devoid of its own animacy and its own lessons to teach. We must also refuse constructions of place-based education that erase the deep knowledge and relationships that Indigenous peoples have to those places by perpetuating “European universalism and settler colonialism” or casting Native peoples as “repositories of static forms of cultural knowledge.”

Land education thus emerges as an Indigenous response to these critiques, providing us with a transformative model for environmental justice education. Land education centers Indigenous epistemologies and orientations to land, acknowledging that all of our relationships with land are shaped by the processes of settler colonialism. In this way, land is a mother, ancestor, and teacher, rather than simply the context upon which experiential education occurs. Additionally, instead being measured by test scores or increased citizenship in the settler state, land education is “accountable to an Indigenous futurity” and demands landback and the unlearning of settler identities to realize its full potential.

What does land education look like in practice? Land education asks us to consider the politics of naming, to dream about food sovereignty, to engage in critical cartographies, to interrupt settler fantasies of becoming Native, to acknowledge the real and enduring relationships between Indigenous peoples and place, to honor both urban and rural spaces as storied Indigenous land.

Afrocentric-Indigenous pedagogy

Our current educational system “favors an individual, abstract and teacher-centered interpretation of education over one that emphasizes collective, concrete and student-centered learning,” and that this contrasts with Indigenous pedagogy and environmental education that rely on “a more localized approach to learning that rests on collectiveness, experientialism and student-centredness” (Biermann 2008). As such, Biermann argues that indigenous pedagogy relies on 3 main tenets: personalized, experiential learning; communal learning and listening; and student-centered learning.

Personalized and experiential learning guides and challenges students “creatively, physically and emotionally through inquiry-based research, multisensory ‘hands-on’ experience and reflective discussions.” Communal learning is described as an almost deep inner listening which “affords each individual member of the learning community the respect and feeling of integrity they require for higher learning to take place.” It is contingent on participants feeling cultural safety in order to engage and participate authentically to feel listened to. This kind of learning realizes objectives by relying on the formation of a ‘cooperative classroom’ that “facilitates the development of both individual and social competencies by [building] on the potential of each individual’s contribution to the whole and the resulting synthesis of ideas.” Finally, student-centered learning “translates into an emphasis on partnership, participation, and allowing for individual solutions to collective learning challenges” and “involve[s] students as much as possible in planning, problem solving, decision-making and determining change management. The role of students, as substantive rather than tokenistic partners in negotiations, contributes greatly to...criteria for effective learning, such as agency and meta-cognitive approaches.”

Eco-justice pedagogy

When based on a root metaphor of ecology, eco-justice pedagogy has 3 main foci: 1) environmental racism and class discrimination - this begs that we “inform students about the politics of toxic waste disposal...how different groups are resisting the contamination of their local environments and workplace, and how the politics of environmental discrimination works” (Bowers 2002). 2) Recovery of the non-commodified aspects of community - this curriculum will help students “recognize the extent their daily lives depend upon commoditized relationships and activities, ...help them recognize the patterns and activities within their own communities that are still largely based on face-to-face, intergenerational sharing of knowledge and skills.... [and should ensure] learning about (and thus valorizing) the non-commodified traditions of ethnic minorities [who] have survived economically and politically repressive environments because of their ability to carry forward the intergenerational knowledge that enabled them to be less dependent upon the consumerism that more privileged groups took for granted. 3) Responsibility towards future generations - eco-justice pedagogy needs to acknowledge the importance of ensuring the health and wellbeing of future generations.

Anti-racist pedagogy

Antiracist pedagogy goes beyond the courses, curricula, and discipline. Rather, it is an approach to teaching and living, even when race is not the subject matter. It begins with faculty’s self-reflection on their identity and social position, eventually leading to the integration of this analysis into their discipline, research, department, university, and community work. This is an ongoing process that must begin before teaching the course but must not stop there. In this way, it is an “organizing effort for institutional and social change that is much broader than teaching in the classroom” (Kishimoto

2018). Pedagogically, there are 3 components to antiracist teaching: 1) incorporating topics of race and inequality into the course content and syllabi, 2) teaching from an antiracist approach, and 3) organizing within campus and the community.

EJ-centered pedagogic strategies

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Assessing positionality and privilege

EJ courses must challenge both instructors and students to critically reflect on how **who they are**—and their intersecting identities related to historical and ongoing power hierarchies—impact **how they teach and learn**. The selection of course topics, readings, discussion questions, and modes of assessment all reflect an instructor’s personal and disciplinary background. This includes instructors who aim to teach in a way that exposes students to many contrasting angles of an issue. Even topics in the technical sciences that might strive to be “objective” and strictly evidence-based reflect conscious or unconscious instructor biases and agendas.

Instructors of EJ courses must discuss their positionality with their class (Cachelin and Nicolosi 2022, Kishimoto 2018). We cannot ask students to do this work without ourselves committing to this life-long work. In fact, it may be irresponsible to do so, because it may end up reifying existing power dynamics in the classroom if the staff are not equipped to facilitate the kinds of conversations where uncomfortable, complex, emotional, and challenging ideas and feelings may arise.

Instructors preparing to teach an EJ course in the near future can:

- Spent time engaging with and reflecting on their own personal identities, positionalities, experiences, and beliefs
- Plan and implement, within the first couple weeks of the quarter, a positionality exercise, in which students can write about, illustrate, and/or discuss how their various privileges and oppressed identities impact who they are and how they move through the world
- Incorporate critical thinking about positionality into each class discussion. For example, invite students to explore how the authors of various class readings are informed by their positionality.

In the long-term, the Doerr School can

- Provide simple, adaptable teaching models and exercises that instructors and TAs can use to facilitate positionality activities in class
- Ensure all teaching staff are equipped to facilitate challenging conversations that may arise.

This might include having teaching staff practice difficult conversations with each other before facilitating them with students

- Have requirements for incoming and existing faculty that they must attend trainings to re- and up-skill in this arena with ongoing support to ensure they can do this successfully

Centering race and Indigeneity

For centuries, race and Indigeneity have shaped the landscape of environmental injustice in the United States. Explicitly calling attention to and centering discussions around race and Indigeneity is essential for EJ courses (Kishimoto, 2018, Beth 2022).

Other modes of oppression, including income, sex ,gender, national origin, age, and ability are also critical dimensions of environmental injustice. The intersection of each of these identities, heightened by the particular traumas of racial injustice, shape the stories of struggle and resistance by marginalized people in the US.

Instructors preparing to teach an EJ course in the near future can:

- Explicitly discuss race and Indigeneity. Be mindful that the following topics can be difficult for students of all backgrounds to confront, endeavor to create a supportive and brave space in the classroom, then boldly introduce the following topics into the narrative of environmental history in the US: slavery, white supremacy, colonialism, genocide of Indigenous people, pandemic disease, eugenics, internment, incarceration, police brutality, imperialism, and racism.
- Discuss data and evidence that explicitly highlights racial disparities in income, health, educational equity
- Prioritize people of color when selecting guest speakers to invite to speak to the class
- Prioritize people of color when selecting readings to assign to the class, and spotlight the scholarship and work of specific leaders of color in the EJ movement
- Implement an “asset-framing” over a “deficit-framing” to spotlight the resistant power BIPOC communities hold in resisting environmental injustice
- Explore BIPOC-led EJ movements throughout history and today

In the long-term, the Doerr School can

- Define an explicit commitment in the Doerr School mission statement to environmental justice, which includes an acknowledgement of racial justice
- Hire additional EJ and non-EJ faculty and instructors of color
- Advocate at the federal level against the policies that prevent institutions of higher education from including language about DEI in their hiring statement and criteria

- Institute an inclusion decision-making process around hiring, promotion, and tenure track decisions
- Conduct a DEI review of Doerr and share the results publicly
- Appoint and compensate a student DEI commission

Valorizing diverse ways of knowing

In all academic discourse, including environmental studies, certain forms of knowledge and scholarship are privileged over others. Technical scientific knowledge from the pure and applied sciences are often hailed as one of the sole sources of rigorous evidence in debates around climate change and the environment. Social science and the humanities are often only appraised as valuable or relevant if published in a reputable peer-reviewed journal. Seeking to ground our climate arguments in rigorous evidence is an urgent imperative amidst today's climate-denial crisis. However, by solely leveraging these narrowly-defined forms of expertise, and rejecting others, environmental entrepreneurs, researchers, teachers, advocates, and activists lose access to a crucial body of knowledge that is essential for winning the fight against environmental collapse.

Important forms of knowledge that are very often silenced in conversations around environmental action include arts and storytelling, traditional ecological knowledge (TEK), and individual lived experience. The suppression of these forms of knowledge is one form of violence enforced through centuries of white supremacy and colonialism. Bringing these perspectives into EJ teaching and learning is a justice imperative and invaluable tool to the climate movement.

Instructors preparing to teach an EJ course in the near future can:

- Invite guest speakers who employ arts, storytelling, qualitative social science research, or TEK in their environmental scholarship and action.
- Invite guest speakers who speak from their lived experience of environmental injustice
- Assign readings that involve qualitative research (especially CBPR), oral histories, TEK, and more. Assign films, music, podcasts, and digital art. If accessible, pay for and facilitate student's engagement with local public art, music, theater, writing, and poetry that engages justice themes
- Hold class discussions about the forms of knowledge that have and have not been valorized in students' prior Stanford and K-12 education. Invite students to share about ways they have learned about the environment beyond the traditional bounds of school and academia
- Create a safe and supportive space for students to bravely share about their lived experience, and positively affirm the experiences of students who share
- Include experiential educational experiences (within the bounds of the class's ability) such as gardening, local volunteering, and hiking during class time.

- Allow students to complete visual art, poetry, oral history, and other creative projects in addition to or instead of final exams and papers

In the long-term, the Doerr School can

- Facilitate more Dean's Lecture Series events that elevate the legitimacy of TEK, oral histories, qualitative CBPR, and lived experience
- Invest more in school-wide programs and research initiatives involving CBPR, humanities, arts, and storytelling initiatives amongst students, staff, and faculty

Dialogic learning

EJ works through democracy and inclusion. A key manifestation of these values is to horizontalize learning. In the *Pedagogy of the Oppressed*, Paulo Freire rejects the “banking model” of education, in which teachers endlessly and unidirectionally lecture to students, banking facts in their minds. Conversely, Freire and many EJ scholars seek to equalize their status with the students, recognizing that instructors have as much to learn from students as students have to learn from instructors. Learning through dialogue (“dialogic” learning) and other horizontal teaching techniques break down classroom hierarchies and open up students and teachers to bidirectional co-learning.

Instructors preparing to teach an EJ course in the near future can:

- Co-create their syllabi with their students
- Intentionally distribute time between one-directional teaching practices such as lecturing, with whole-class/small group discussion and other collaborative activities
- Consistently seek feedback from students about how the course is being taught and actively adapt it around their needs and interests
- Be approachable to students and offer your mentorship capacity
- Create in-class time for students and instructors to all get to know each other as whole people
- Create optional outside-of-class events such as a class walk around campus or a meal covered by class funds

In the long-term, the Doerr School can

- Fund EJ courses with additional class funds for outside-of-class events and meals
- Encourage teachers to co-create syllabi with their students, and offer template resources for doing so
- Require a certain level of mid-quarter feedback and evaluation for Doerr school courses

Reciprocity

Working alongside and supporting frontline communities is a key aspect of EJ. University EJ courses

can manifest this value by engaging in research and service with local communities facing and fighting environmental injustice. However, if not organized through mutualistic and trusting relationships, class engagement with local communities can also serve to deepen structural inequalities and harm. EJ courses doing community-engaged participatory research (CBPR), community-engaged learning (CEL), or service with local communities and organizations must ensure that the partnership is built on a relationship of authentic trust, is a long-term commitment, addresses the community's real needs, is mutualistic, and builds rather than burdens organizational capacity.

Instructors preparing to teach an EJ course in the near future can:

- Begin showing up to local community EJ events to listen to and learn from local leaders
- Understand the landscape of existing partnerships with local organizations such as through the Office of Community Engagement, the Haas Center, and the EJ working group
- Read the Haas Principles of Ethical and Effective Service
- Network with professors on campus who are already engaged with community organizations
- Respectfully approach community organizations and leaders with a curiosity and authentic interest to learn about their needs and interests, and explore a long-term partnership that can help meet them
- Develop long-term, sustainable relationships with community partners over several years

In the long-term, the Doerr School can

- Help fund student summer and post-grad internships with trusted community partners working in EJ
- Provide additional course funds to classes that seek to provide stipends to community partners or guest speakers from the community
- Fund more research initiatives that involve CBPR and long-term, mutualistic local partnerships

Example Syllabi

Many courses at Stanford's peer institutions model exemplary innovation and creativity in introductory environmental justice teaching. Spotlighted below are five EJ course syllabi that each particularly embody a different EJ-centered pedagogic strategy (assessing positionality and privilege, centering race and Indigeneity, valorizing diverse ways of knowing, dialogic learning, and reciprocity).

Indeed, each of these syllabi also encompass *all* five strategies to different extents. For additional case studies, syllabi, and model teaching resources, please visit [Teaching and Learning Environmental Justice](https://www.teachingej.com/) (<https://www.teachingej.com/>), an EJ teaching and learning website created by Stanford EJWG members Neha Patkar and Keoni Rodriguez.

Furthermore, for a deeper discussion of anti-racist environmental justice pedagogy, one can request

access to the syllabus of [ESPM 290: Critical Engagements in Anti-Racist Environmental Scholarship](#), a Berkeley course designed to train future Berkeley environmental course instructors on how to more deeply center anti-racism in their teaching and research.

Assessing positionality and privilege

EARTHSYS 194: Introduction to Environmental Justice: Race, Class, Gender and Place

Stanford University

Dr. Sibyl Diver, Dr. Emily Polk

EARTHSYS 194 incorporates critical reflection on one's positionality and each students' privileged and oppressed identities through readings, in-class exercises, and assignments. The course aims for student to "develop an increased awareness of context and positionality as students practice situating their own identity (race, gender, class) as part of their thinking, writing, researching and communication practices regarding environmental issues." When students submit one of their main course assignments, an EJ project proposal, they must also include a positionality statement discussing how their identity relates to why and how they are undertaking the assignment.



Centering race and Indigeneity

ENVR E-145: Introduction to Environmental Justice

Harvard University

Dr. James Hoyte, Dr. Timothy C. Weiskel

ENVR E-145 explores EJ through the lens of race by centering almost all weekly units around course themes that elevate how environmental issues disproportionately impact people of color, and spotlighting the leadership of community organizers of color in resistant action. The course focuses on topics including Hurricane Katrina, racialized urban planning and redlining, nuclear development in

Navajo Nation and the Pine Ridge and Spokane Indian Reservations, asthma amongst low-income communities of color, labor, and toxic waste. The course invites numerous guest speakers of color to speak about their work and leadership organizing environmental justice research, policy, and campaigns.



Valorizing diverse ways of knowing

[EAS 501: Indigenous Sustainability & Environmental Justice](#)

University of Michigan

Dr. Kyle Whyte

EAS 501 tackles an introduction to Indigenous perspectives on EJ both by covering topics related to Native American EJ and doing so through an Indigenous epistemology. The course “seeks to understand, from Indigenous perspectives, how many Indigenous movements, Indigenous sciences and knowledge systems, and the projects of Indigenous organizations and governments seek to achieve sustainability and environmental justice, including the challenges they face and the lessons they have learned.” The course also strives to create a safe, anti-racist, empowering class environment (to “keep close to heart the goal of building a learning community”) grounded in “collegiality,



reciprocity, trust, consent, and mutual care” and the priority that “health comes first.”

Dialogic learning

FES 846B: Topics in Environmental Justice

Yale University

Amity Doolittle

FES 846B, a seminar course, empowers students as co-creators of knowledge and as drivers of their own learning by centering student-led class discussions. Participation and contributions to class (e.g. in-class participation, discussion leadership, and reading responses) are 60% of the grade. For the remaining 40% of the grade, the course culminates in a competitive opportunity for student EJ project proposals to be considered for a \$50,000 year-long grant to support their ongoing EJ research and scholarship. Providing students with a springboard to launch their EJ action and scholarship careers appraises the power of youth in leading the next generation of EJ.



Reciprocity

UEP 278: Environmental Justice, Security, and Sustainability

Tufts University

Dr. Penn Loh



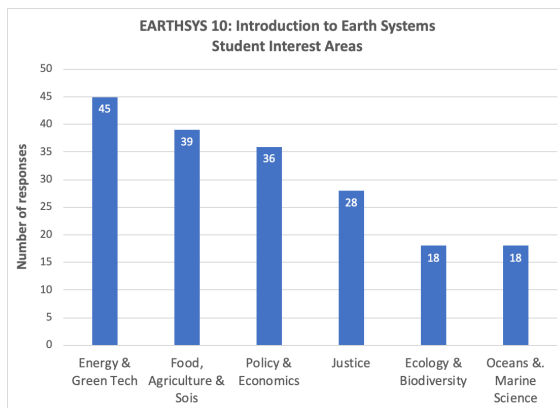
UEP 278 aims to introduce students to the practice of forming and maintaining reciprocal, mutualistic community partnerships through field trips, guest speakers, and community partnerships with a small number of organizations with whom the class has long term relationships. The course aims to “deepen our understanding of the challenges and responses to environmental injustice through several site visits with local EJ groups and guest presenters who will help frame environmental justice efforts in other parts of the country and the world” and to “inspire and meaningfully engage students in local and regional efforts to promote environmental justice”. The class involves site visits to

Alternatives for Community & Environment in the predominantly Black neighborhood of Roxbury, GreenRoots in predominantly Latine Chelsea, and the Chinese Progressive Association in predominantly AAPI Chinatown. The course also involves supporting a community partner on an EJ project, teaching students how to undertake such collaborations in generative, not self-serving or extractive, ways.

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Student Voices from EARTHSYS 10

Students who took *EARTHSYS 10: Introduction to Earth Systems* in Autumn 2022 were invited to comment on sustainability-related content areas that they would be most interested in exploring through coursework during their remaining time at Stanford. EARTHSYS 10, with an enrollment of 285 students last fall, is the largest sustainability-related course offered at Stanford. Course instructors included the following question into the end-of-quarter course evaluation: *Reflecting back on what you've learned this quarter in EARTHSYS 10, what are some areas you would be most interested in exploring in future coursework at Stanford? Are there particular topics, frameworks, or perspectives you would like to learn more about in relation to sustainability?* 134 students responded. The most frequently mentioned areas of interest, summarized in the figure below, included energy and green technology; food, agriculture, and soils; environmental policy and economics; justice/environmental justice; ecology and biodiversity; and ocean and marine science. Environmental justice continues to be a topic of deep interest to Stanford students pursuing coursework in sustainability and environmental science.



Implementing EJ Pedagogy

PART I: Examining and aligning values (the “why”)

The first phase of implementing EJ into our teaching practice requires us to think deeply about *why* we want to teach with EJ. This requires an openness to self-reflection and self-improvement. Spend time engaging with and reflecting on your identities, positionalities, experiences, and beliefs on a personal and professional level. This is especially important because EJ work includes connecting with social movements being led by Black, Indigenous and people of color communities, for the purpose of addressing deeply seeded social injustices that are linked to problems of environmental degradation. Stepping into this work therefore involves educating yourself on the EJ issues, topics, and stories that resonate with you and your discipline. This can also include building personal awareness around EJ issues in your community, as well as the frontline community groups that are leading efforts to

address these issues. This phase of initial reflection and approaching EJ work is also important for students. Consider how you might also guide students through this process or perhaps approach it together.

- Self-reflect and contemplate your own personal identities, positionalities, experiences, and beliefs
- Identify and examine the values, history, positionality, and mindsets of your discipline
- Explore EJ issues that are occurring in your community, and the frontline community groups that are working to address them
- Learn about EJ principles for respectful engagement (e.g., 1991 EJ Principles, Jemez Principles)
- Reflect on your teaching philosophy and the relationship between teachers, learners, and community
- Guide and support students in examining their personal identities, positionalities, experiences, and beliefs
- Encourage class community and student agency
- Explore relevant EJ topics by seeking out the voices of those most impacted by environmental injustice, particularly BIPOC and other historically marginalized communities, with the goal of aligning behind these communities to understand the problems that are most important to them, as well as any community-led solutions being put forward.

PART II: Revising your content (the “what” and “who”)

The second phase of implementation calls on us to rethink the content of *what* we choose to teach. Be thoughtful of the topics, course materials, and voices you center. This may begin with changes to the required readings in a specific course for example, and may extend to changes to the broader program curriculum. This may also involve shifting problem definitions and the types of environmental problem solving frameworks you engage in. Because EJ is rooted in deeply rooted injustices, this work often involves engaging in understanding historical causes of EJ problems that include colonization, slavery, and different kinds of racialized dispossession. Where possible, seek input from students and community members on what topics, resources, or issues are meaningful to them.

- Look at case studies that align with your goals and values for inspiration
- Center EJ topics and BIPOC voices in your course materials, guest speakers, and so on
- Engage with deeper histories of racial injustice, and social justice movements that are connected to environmental degradation
- Identify and name sources of inequity in your discipline or area of study
- Seek out allies, partnerships, and community
- Locate strategic intersections with social justice movements, frontline communities, and other

instructors taking this approach

- Tap into available resources such as:
 - EJ Working Group
 - DEI Librarians
 - Haas Center for Public Service

PART III: Changing your teaching practices (the “how”)

The third phase of implementation is to change *how* we teach. This may include changes to classroom teaching techniques, learning activities, assessments, communication, course design, administration, and even policy-making. This may even extend to reconsidering the locus of expertise and authority in the classroom and remimagining the power relationship between instructors and learners.

We encourage you to try new approaches, gather feedback, and make incremental improvements to your course or teaching methods. Also, you might consider how to leverage students’ expertise, involve students in decision making about course content or learning activities, and augment the role of instructor from an expert authority to a learning partner.

- Add in elements of student choice and agency
- Consider student-led goal setting when determining activities and assessments
- Partner with local organizations such as through the Office of Community Engagement, the Haas Center, and the EJ working group
- If developing student-community projects, align behind the needs and capacities of frontline community groups
- Develop long-term, sustainable relationships with community partners over several years
- Sustain engagement with positive reinforcement
- Employ strategies that support well-being and belonging for students, yourself, and community partners
- Building in reflection and peer learning

Recommendations for SUST101 (Belinda)

This new course is an opportunity to apply these pedagogies in a fresh way

Weekly guest lecturers format:

- Able to pilot individual units and pedagogies within the broader course
- Exposes a lot of instructors to the values and strategies
- Get lots of feedback from diverse instructors/learners

List potential guest lecturers

- Elliott White
- Maya Burke
- Mike Wilcox
- Tendayi Achiume
- Will Tarpeh
- Shari Libicki
- Jorge Ramos
- Shaili Johri
- Shawna Follis
- Gabrielle Wong-Parodi
- Derek Ouyang
- Jenny Suckale
- Elizabeth Hidalgo Reese
- Nani Friedman
- Spencer Robinson
- Whitney Francis
- Deland Chan
- Katherine Burke

Internship and career opportunities

- *Maybe ask Esther Conrad for recommendations to go here*
- Cardinal Quarter opps
- [Partnerships for Climate Justice in the Bay Area](#)

Benefits

TBD

Summary

TBD

Call to Action

TBD

Acknowledgements

TBD

Works Cited

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Pedagogy of the Oppressed

[Situating the Scientist: Creating Inclusive Science Communication Through Equity Framing and Environmental Justice](#)