UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources
California Naturalist Program

CALIFORNIA CLIMATE NATURALIST STEWARDS

Our Guiding Principles

We strive to ground our courses in

- Systems Thinking
- Community of Life
- Positivity and Motivation
- Addressing the Whole Person
- Place
- Many Ways of Knowing and Being
- DEIJ-informed Culture

employing

- Social-Emotional Resilience and Trauma-Aware Practices
- Research-based Climate Change Communications
- Inter-, Multi-, and Transdisciplinary Science
- Participatory Science
- Collective, Community-scale Solutions
- Community of Practice Structures

to achieve

community and ecosystem resilience through community-level transformative change.

Grounding

❖ Systems Thinking [5,6,7]

Systems thinking acknowledges that nothing works in isolation, rather all systems are interrelated. Everything is interconnected.

The systems people are most familiar with are the biological systems within our own bodies (e.g., nervous, digestive, and circulatory systems), and we know these systems interact to influence our overall health and well-being. Likewise, weather is another familiar system, which through aspects such as temperature and humidity, is interconnected with and influences our bodily systems.

When it comes to human-caused climate disruption, the root causes are embedded in the existing, increasingly dysfunctional human systems (e.g., economic, legal, educational, energy, agricultural). To effectively address climate challenges, we need to reimagine how these systems can be re-structured. In our program, we focus on systems thinking with the objective to both reimagine and enact community-scale interventions to transform the systems driving climate disruption.

- **Human Relationships with the Community of Life** [1]

  Humans are part of the animal kingdom and thus are embedded in the ecosystems in which we live. We are inextricably *interdependent* and *interconnected* with the rest of the community of life. By reconnecting ourselves with the rest of the community of life, our empathy and respect for all of life is enhanced, resulting in a stronger commitment to Earth stewardship.

  Working to preserve Earth's biodiversity in the face of change not only protects the wider community of life, it also shields us from the declines in mental and physical well-being humans experience when other species are eliminated from the community of life.

❖ Positivity and Motivation [9]

Responses to climate change range across the spectrum of emotion. Some people experience emotions like sadness, anger, disgust, helplessness, despair, fear, and anxiety. Others experience emotions such as hope, curiosity, inspiration, compassion, empathy, empowerment, and passion. Many people experience a mix of emotions, in part, because of the uncertainty associated with change.

People are motivated to take action when they feel like they can make a difference. When a situation seems hopeless, people are more likely to shut down and dissociate themselves from the issue. Focusing on the positive opportunities of solving a problem is a more effective way to communicate and take action. Using a reasonable, measured tone with positive examples of solutions has proven to be the most effective way to communicate about climate change.

❖ Addressing the Whole Person [8]

Each person exists in every moment as a combination of mind, body, spirit, and emotions; this is the *whole person*. Whether we are gaining knowledge or making choices, all of these aspects of ourselves are present. When our mind learns that climate disruption threatens the people and places we care about, we respond emotionally, too. When our body feels the soaring temperatures of an extreme heat event, our spirit reacts as well. Since all parts of our physical and psychological selves are engaged as we learn and make choices to act, our program aims to address the needs of the whole person. With an eye to *holistic* learning, our program emphasizes self-reflection, social and emotional resilience, trauma-aware practices, interdisciplinary science, and communication science throughout the curricula.

❖ Local, Place-shaped Knowledge [1]

Connecting to the reality of climate disruption, understanding the impacts, and finding solutions is easier if the context is local, rather than referring to impacts occurring in far-off places. People are often connected to *place*, and deepening our connection to place can result in transformational learning leading to action. *Place-shaped knowledge* comes from learning locally in natural, built, historic, and cultural environments in partnership with community. By centralizing connection to place and reexamining predominant cultural norms that position us as separate from the land, we can take a step toward reimagining local lifeways shaped by and in harmony with the places we inhabit.

❖ Many Ways of Being and Knowing [12,13]

Generally speaking, "Western" educational institutions along with contemporary global society and social media reinforce limited ideas of beauty, science, value, and truth; however, there are many other ways of being and knowing. Many cultures and value structures around the world offer an array of possibilities for human existence that support the flourishing of life on Earth. A diversity of perspectives is a strength we can choose to learn from and leverage as we address climate challenges.

California is home to millions of people from almost every culture in the world; this incredible diversity is a wonderful strength. Many Native communities live in California and use *Traditional Ecological Knowledge* to help sustain themselves, their families, and their culture. This reservoir of human experience includes the millennia of understanding held in the hearts, minds, and stories of the first Californians, which serves an indispensable complement to the modern climate science of the last 100 years.

Every person, regardless of background and circumstance, holds their own *cultural, psychological,* and *social perspectives*. These perspectives/worldviews play a crucial role in determining what sorts of communication individuals will listen to and whether or not someone chooses to act in certain ways. People listen most closely to those they see as trusted messengers who share the same or similar perspectives. It takes an open heart and mind to listen earnestly to those we perceive to be different from us. It is in this openness that we can find places of similarity we didn't know existed, allowing us to broaden our understanding of the many ways of knowing and being.

❖ Justice, Equity, Diversity, and Inclusion [2,10,11]

We believe the need to address DEIJ issues throughout society is urgent, necessary, and morally right. Climate change cannot be addressed without considering issues related to equity and inclusion. We cannot have true success in climate resilience without including all people throughout the planning, acting, and flourishing processes.

Diversity: A range of psychological, physical, and social differences that occur among any and all individuals; including but not limited to race, ethnicity, nationality, religion, socioeconomic status, education, marital status, language, age, gender, sexual orientation, mental or physical ability, culture, social identities, learning styles, and lived experiences. These differences often lead to systemic advantages or barriers to opportunities. When working in and among our communities, we must ensure diversity is reflected in the stakeholders represented in any initiative.

Equity: The guarantee of fair treatment, access, opportunity, and advancement while at the same time striving to identify and eliminate barriers that have prevented the full participation of some groups. The principle of equity acknowledges that there are historically under-served and underrepresented populations, and that fairness regarding these unbalanced conditions is needed to assist equality in the distribution of impacts, benefits, or access and the provision of effective opportunities to all groups.

Inclusion: The act of creating environments in which any individual or group can be and feel welcomed, supported, and valued allowing them to fully participate and bring their full, authentic selves to work. Inclusive environments embrace multicultural and indigenous

histories and presence; assure people's differences are represented and respected; and cultivate community empowerment, care of natural resources, personal connections, and a sense of ownership. An inclusive and welcoming environment embodies openness, upholds ease of entry, and offers respect in the words, actions, and thoughts of all people.

Justice builds on diversity, equity and inclusion, and the activities of justice are morally right actions enforcing fairness and access.

> **Environmental justice** is the principle that all people should have access to healthy, safe, livable communities and environments. This justice will be achieved when everyone enjoys: 1) the same degree of protection from environmental and health hazards; 2) equitable access to environmental benefits, opportunities, and services; and 3) equitable access to the decision-making processes to have a healthy environment in which to live, work, and play.
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> **Social justice** is the concept of fair and just relations between the individual and society. This is measured by the explicit and tacit terms for the distribution of power, wealth, education, healthcare, and other opportunities for personal activity and social privileges.

Employing

➢ Social-Emotional Resilience Practices [2,8]

Environmental, conservation, and climate education, interpretation, and communication usually draw passionate people. Most people who come to work in these fields feel strongly invested in the current well-being and future flourishing of the people, organisms, ecosystems, and/or outcomes that they are working to promote and protect. This deep personal investment often means that when people run up against barriers that diminish or destroy what they're working toward, they may feel the same frustration and pain as if they themselves were being harmed. Working with and through these feelings and continuing to be in the spaces that induce such emotions is referred to as social-emotional work. It is *work* because it takes effort to manage the emotions you are feeling, maintain your relationships, and sustain social expectations.

The reality of social-emotional work leads to a great need for social-emotional support. It can be overwhelming to continue working while feeling ignored, alone, depressed, and angry. It becomes easier to continue moving forward when you know other people are experiencing the same things as you are and having someone to talk to about your frustration can restore your hope. Fellowship with, and mutual support from, others working toward the same or similar goals allows the work to continue in the face of

seemingly insurmountable odds. Our program aspires to support the social-emotional work of its alumni by fostering social-emotional support through our Community of Practice.

- **Trauma-aware Practices** [2,8,14]

  With the expanding impacts of climate disruption, how we approach communication becomes ever more important. Growing numbers of people have lived through an extreme event that may have left deep wounds in their psyche. The traumas that can result from these experiences are unique to every individual and no two people experience trauma or react to trauma the same way. By approaching communication with a *trauma-aware lens*, it is more likely we will connect with our audiences rather than trigger a memory that may cause them unnecessary pain, or to deny the state of affairs or isolate themselves from all thoughts of climate disruption, its impacts, and most significantly its solutions.

- **Research-based Climate Change Communication** [18, 19, 20, 21, 22, 23]

  The majority of the people in the United States are interested in climate change and say it is important to them personally. However, the majority of people rarely or never talk about climate change with friends and family because of the (incorrect) perception that others do not share the desire to talk about climate.

  In our Climate Stewards course, we teach evidence-based communication practices, including strategic framing for climate change communication from the National Network for Ocean and Climate Change Interpretation (NNOCCI). Not only are these techniques grounded in research, studies of trained communicators show that climate-based dialogues increased because of increases in the practitioners' feelings of self-efficacy.

- **Inter-, Multi-, and Transdisciplinary Science**

  Our science approach draws on physical sciences (e.g., biology, physics, and chemistry) as well as social sciences (e.g., psychology, sociology, and communications) and endeavors to appropriately incorporate traditional ecological knowledge. The key to our approach is the *interconnection* and *integration* of knowledge across multiple fields, such as communications being informed by neurobiological science and environmental science integrating psychology.

- **Participatory Science** [1,14,15]

  When people have the chance to engage in hands-on discovery of the world around them, they develop a greater sense of *agency* and *science identity*. This is true of inquiry into the natural world (e.g., recording temperature measurements) and into the social systems that surround us (e.g., assessing accessibility of cooling centers during extreme heat events).

Additionally, professional scientists are increasingly using data gathered by non-professional scientists to aid in local research. Participatory science plays an important role as a research technique, providing teaching and learning opportunities, and applied participation in community problem solving.

➢ Collective, Community-level Solutions [1,16,17]

We believe collective, community-level work is needed to enact policies and change social norms while together we create a new vision for our shared future. Action on climate challenges needs to match the scale of the problem, and this requires change at all levels of society. *Community-level, systems-oriented action* can bring about this *transformative change* and allow us to create a sustainable way of life.

➢ Community of Practice Structures [1,8]

A Community of Practice is a group of people who share a concern or passion for something they do, learn how to do it better as they interact regularly, and have a shared concern, community, and practice. UC Climate Stewards foster a Community of Practice that shares concern for community and ecosystem climate resilience; a community consisting of all those associated with UC Climate Stewards, and practice centered on an inclusive approach to climate literacy, climate communications and interpretation, and building community resilience. Through our community of practice, we aspire to support each other socially and emotionally as well as in our collective work, sharing best practices, discussing ideas for projects, seeking support in difficult times, and engaging in hands on work.

Achieving

★ Community and Ecosystem Resilience [1,2,3,4]

Resilience is the ability of a system or community to survive disruption and to anticipate, adapt, and flourish in the face of change. Our program works to strengthen community resilience by examining risks and vulnerabilities, building and improving social connections among community members, and working toward transformative change with local organizations. Understanding ecosystem process and function is critical to advance resilience. Equally important is community resilience that relies on strengthening interdependence among community members and healthy ecosystems for everyone to thrive.

End Notes:

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