

CLIMATE CHANGE CURRICULUM CO-CREATION

BACKGROUND

The goal of decolonizing science relies on adding Indigenous knowledge into education, providing a deeper understanding beyond the Western scientific approach. This involves embracing student-centered, place-based programming and fostering collaborative partnerships with Indigenous communities.

"Actionable science co-produced in partnership with Indigenous peoples can support Tribal resource management decision-making."

The Institute for Tribal Environmental Professionals 2021

OBJECTIVE

Co-create a climate change module with and for Indigenous people, to be taught by the Native American Tribes Upholding Restoration and Education (NATURE) program.

RESULTS

Standard Curriculum vs. Menu

The co-creation group, comprised of academics and previous NATURE program students, realized that a standard curriculum wouldn't be suitable for an Indigenous student and a place-based program. Therefore, we developed a climate resilience module that offers greater adaptability. This module can also serve as a flexible menu, allowing the seamless addition of activities and guest speakers into the program curriculum.

Module Purpose

Explore and participate in building climate resilience through collaboration, adaptation, and mitigation. Drawing from Westernized science and Traditional ecological knowledge (TEK), incorporating innovative and inclusive practices from Indigenous cultures, students in the NATURE Program cohort can create sustainable and resilient approaches climate change in their communities.

What Changed in the NATURE Program?

- Various new speakers, activities, videos, etc. included.
- Established valuable partnerships with additional speakers who could not attend this year but would like to in the future.
- Successfully implemented a river trip with Indigenous guides, allowing for nature-based connection.
- Introduced mentorship opportunities for students and invited all mentors and speakers to the cohort symposium for networking purposes and to show support.



"My hope is to demystify the scientific process and to say, all we do when we're talking about science and doing research is ask questions. That's all we do, ask questions, and we figure out different ways to answer those questions. And we call it science."

"We're just trying to figure out where and how we go from here. I think that's within the educational base, The traditional education part of our communities where we can re-implement those, and really just as our own nation to make that possible for our people within our communities."

CONTRIBUTORS

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N•A•T•U•R•E
Native American Tribes Upholding Restoration & Education

Indigenous Climate Change Module Outline

Day 1: **Climate Change and the Colorado Plateau**

Day one lays the foundation of climate change science and projections in the region and previews terms and themes of what will be covered throughout the week.

1. Themes:

- Adaptation & Mitigation
- Cattle & Ranch/Land Management
- Food Sovereignty
- Water (Conservation, Mitigation, Rights, & Activism)

Days 2-3: **Climate change adaptation and mitigation research in and around Moab**

Days 2 and 3 provide students with immersive and informative experiences in and around Moab, Utah.

On day 2, students have the opportunity to take a day trip down the Colorado River with the Canyonlands Field Institute (CFI), guided by Native guides and outdoor educators. The Native guides discuss climate change through their own lens.

The next day, day 3, focuses on fire mitigation and management, with an emphasis on the importance of diverse practices, including Western and Indigenous cultural burning practices. Students will also have the chance to explore cattle grazing and rotation practices at the Canyonlands Research Center and participate in additional options such as climate adaptation plans.

Day 4: **Climate Resilience and Action in the Four Corners Region**

Day 4 focuses on climate resilience and action in the Four Corners Region. Potential speakers include members from Salt Lake City Air Protectors, Rural Utah Project, and To Nizhoni Ani "Sacred Water Speaks". Activities will include permaculture and ecological design for climate resilience, with a community garden tour as well as a screening of the documentary "Powerlands" (2022) by Camille Manybeads.

Day 5 **Career Panel - Networking Breakouts / Mentorship, & Gratitude - Hopeful Solutions, Grounding-Healing, Vision, and Outlook**

The final day of the module focuses on career development, networking, and mentorship, along with reflection and gratitude. Students will have the opportunity to reflect on their experiences and insights gained from the program through various activities such as journaling, art, small group discussions, and large group talking circles. The day will also feature a career panel with invited speakers from previous days, followed by breakouts for students interested in networking with specific speakers. Additionally, all speakers are invited to the student capstone project presentations to provide support and mentorship. To ensure the continued engagement of certain speakers in this mentorship program, we provided Visa gift cards.

****For a copy of the full Climate Change Resiliency module, please contact Bayli Hanson at bayiray.hanson@gmail.com**