



California Community Colleges

Vision 2030 in (Climate) Action:

*Spotlighting California Community
College Faculty Curriculum Innovation*

April 28, 2025



Dr. Carla Grandy

Climate Advisor and Senior Climate Fellow,
California Community Colleges



Dr. Sonya Christian

Chancellor,
California Community Colleges



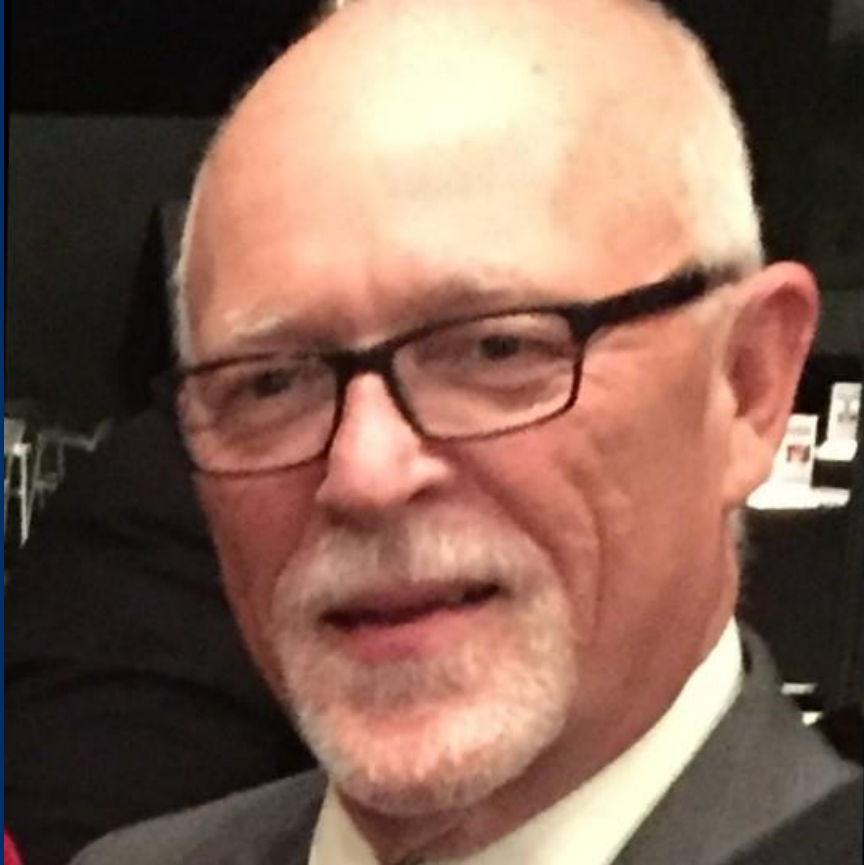
Dr. Cirian Villavicencio

Member, Board of Governors for California Community Colleges

Trustee, Calbright College

Political Science Faculty and Chairperson, San Joaquin Delta College

Board Member, Asian and Pacific Islander American Staff Association (APIASA)



Dr. James Limbaugh

President,
West Los Angeles College
California Center for Climate Change Education
Los Angeles Community College District



Dr. Joana Tavares

Director, California Center for Climate Change Education



Dr. Holly Bailey-Hofmann

Curriculum Climate Fellow, California Community Colleges

Community of Practice Coordinator, California Center for
Climate Change Education

English faculty, West Los Angeles College

Curriculum Climate Fellow

- Collect data on climatized curriculum across disciplines statewide and create landscape analysis
- Surface and elevate curricular best practices and innovation
- Develop webinars and regional trainings for faculty
- Submit formalized recommendations to Chancellor for:
 - scaling up the climatization across the curriculum
 - curriculum resource sharing
 - intersegmental work across K12 / 2 year / 4-year spectrum

Landscape Analysis

Data Fields

College Name

Climate-related Degrees or Certificates

Climate Related Workforce Program

Non-STEM Climate-Related classes (e.g., PHIL 41, Environmental Ethics)

Non-STEM Completely Contextualized Classes (e.g., ENGL 102, "Clifi"; COMM 101)

STEM Contextualized Classes (BIO 3, GEOG 2)

Green Leaf Designation



Early Findings

90% of our 116 CCC have a sustainability or climate related degree or certificate

Districts/ with 300+ faculty embedding sustainability/climate content into their classes across the curriculum

Los Angeles Community College District 350+ faculty altogether

- Sustainable Environment Institute (SEI) helps faculty embed environmental justice into courses as varied as Political Science, English, Spanish, Kinesiology

Climate/Sustainability **Embedded** Into Courses across the Curriculum

Colleges with 20-50 faculty embedding sustainability/climate content into classes across the curriculum

College of San Mateo

Mt. San Antonio College (“Mt. Sac”)- green leaf designates faculty SDG course redesign

West Los Angeles College -Climate Across the Curriculum program

Colleges with 5- 10 faculty embedding sustainability/climate content into classes across the curriculum

Fullerton College- Orange County

San Diego Miramar College

Districts with 150 faculty embedding....

Los Angeles Community College District (SEI)

Colleges with Sustainability/Climate-Centered Courses

Mt. San Antonio College (“Mt. Sac”)

Humans and the Environment (Bio) , Environmental Geology, Global Climate Change, Environmental Politics

Palomar College

Environmental Economics

LA Pierce College

Environmental Politics

Santa Rosa Junior College

Environmental Philosophy, Environmental History, Environmental Economics, Environmental Political Science, Ecology, Natural Resources Conservation, Sustainable Agriculture

West Los Angeles College

Environmental Ethics (Philosophy)

Northern California



SANTA ROSA
JUNIOR COLLEGE

College of San Mateo



FOLSOM LAKE COLLEGE
LOS RIOS COMMUNITY COLLEGE DISTRICT



California
Community
Colleges

Southern California



The Sustainable Environment Institute at LACCD
seilaccd.net



Looking Ahead

- Work with ASCCC to create a Curriculum Board of Governors Sustainability goal
- Work with ASCCC to consider possible addition to Title V science language to include climate literacy
- Regional Trainings on “climatizing” courses across the curriculum planned for fall

Folsom Lake College Faculty



**Prof. Eric
Wada**

Biology faculty



**Dr. Tamara
Cheshire**

Ethnic Studies faculty



**Dr. Fran
Keller**

Biology faculty



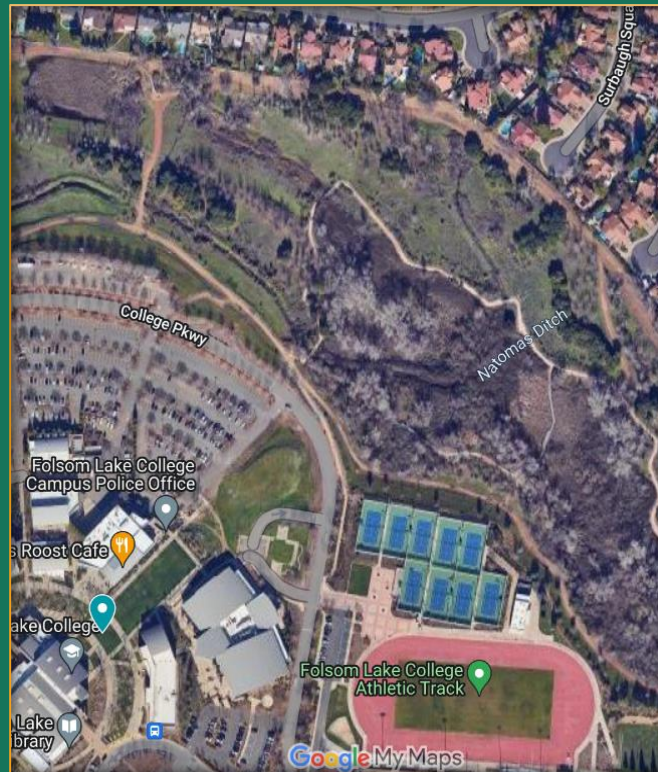
**Dr. Steve
Holtzberg**

Biology faculty

Integrating Wetlands and Gardens into College Curriculum



Enhancing Education through Environmental Stewardship



- Dr. Tamara Cheshire
- Dr. Steve Holzberg
- Dr. Fran Keller
- Dr. Eric Wada



FOLSOM LAKE COLLEGE
EL DORADO CENTER | RANCHO CORDOVA CENTER

Importance of environmental elements in education- Benefits of Gardens in education



**Mental And Physical Health
Benefits**



Community Building



**Growing And Consuming
Fresh, Healthy Produce**



Implementing Gardens in Curriculum include: **Practical Projects**

Student-led gardening projects and research



Sustainability Practices
Nutritional Education

Teaching composting, organic farming, water conservation



Implementing Wetlands in Curriculum



Field studies and research projects

- Interdisciplinary integration

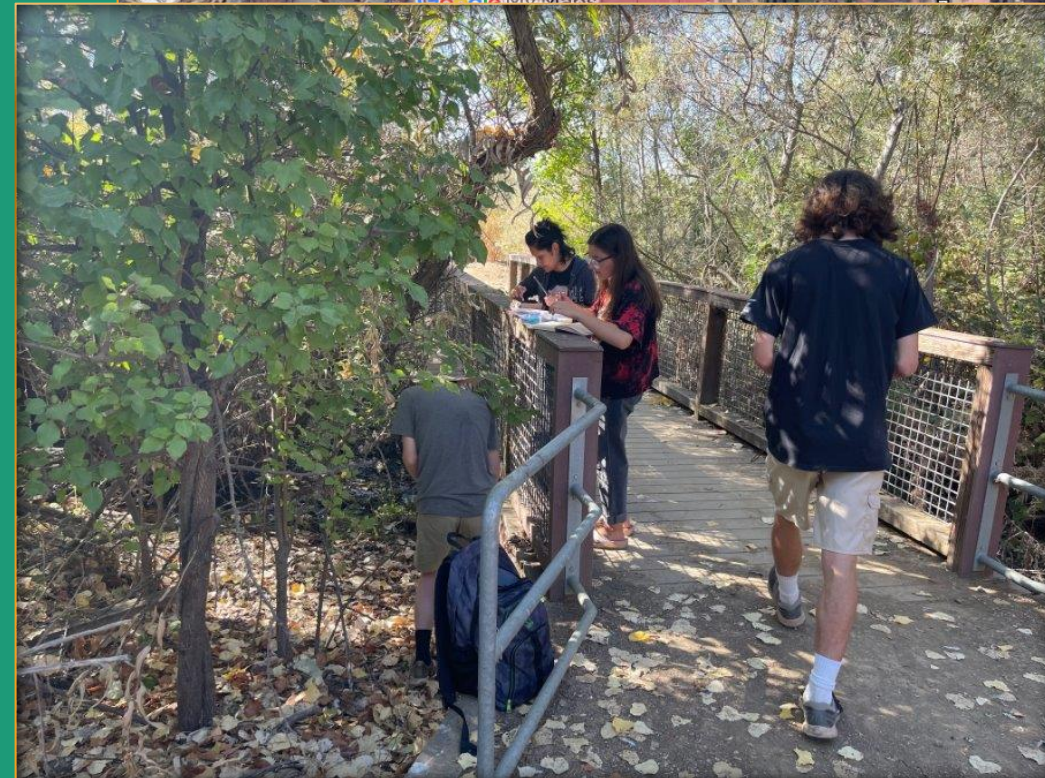
- Biology

- Native American Studies

- GIS and geography

- Art

- Community partnerships



BIOLOGY - LIVING LABS

Benefits of Wetlands in Education

- Ecological understanding through natural labs
- Biodiversity awareness
- Gaining job skills
- Interconnectivity



Climate action:

carbon sequestration

water purification





Dr. Mardi Parelman
Nutrition Science faculty,
SD Miramar College

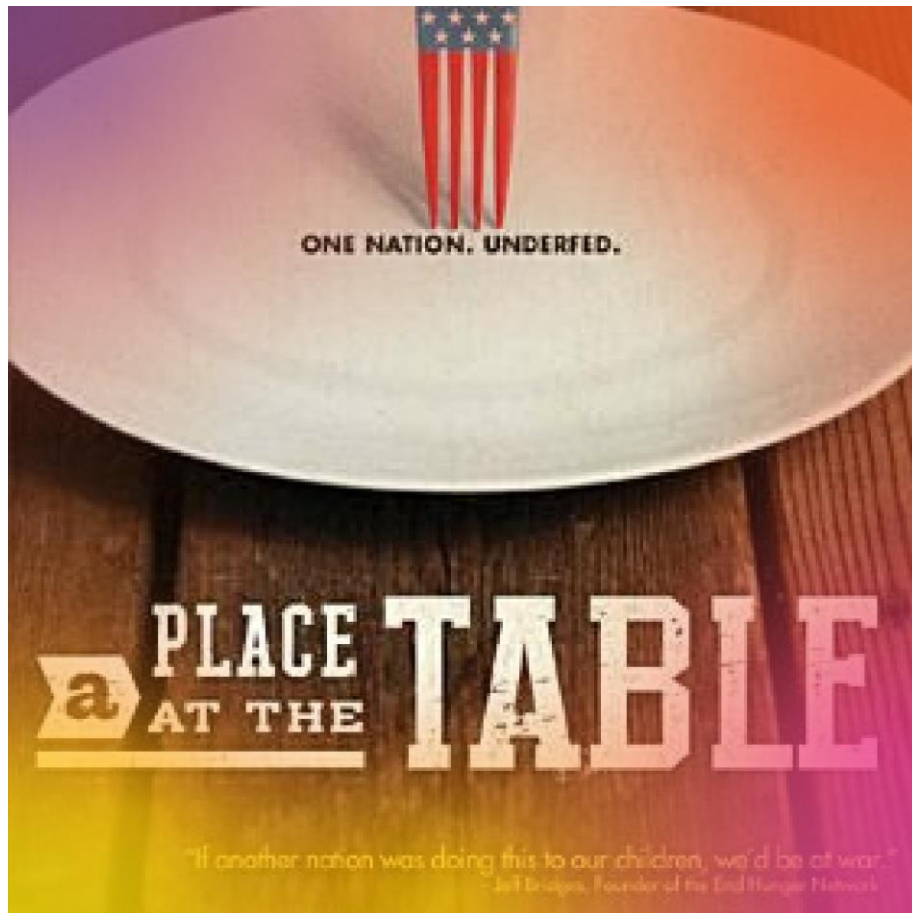
Incorporation of Sustainability and Climate Change throughout Nutrition Curriculum

Mardi Parelman, PhD
Associate Professor of Nutritional Sciences
San Diego Miramar College
mparelman@sdccd.edu

April 28, 2025



Why nutrition matters



- Are people in the United States malnourished? How many? What about in my local community?
- How does short and long-term malnourishment affect growth and development? Disease risk? Health and well-being?
- **What contributes to food insecurity?**
- **How is food insecurity connected to our food systems and public policies?**
- **What social programs are in place to support people experiencing food insecurity and how are they funded?**
- **What does food insecurity and malnourishment look like outside of the United States?**
- **What factors contribute to food insecurity and malnutrition outside of the United States?**



Some student work-product

“I learned that the USDA has control over farming and agriculture of the United States. **They subsidize wheat, corn and soy[beans]. Thus making it cheaper to use those 3 ingredients to process foods like corn chips and bread.** I learned about food deserts. Places where there is a lack of fresh fruits and vegetables. However, there is chips, cakes, and ice cream readily available. **This means that people have to drive or take a bus to go outside of their city to get fresh fruits and vegetables.”**

“An interesting thing I learned from this report [about Yemen] was that people who are facing poverty and hunger need more than just nutrients. When it comes to **poverty and hunger, people usually think about lack of food, but this article showed that there are other important humane needs such as sanitation, safe water, and immunization.**”





Sustainability and the Food Systems Incorporated into Existing Food Safety and Biotechnology Module





Use of films, assigned short readings to initiate discussions



Some student work-product

"Food production significantly impacts the environment, from greenhouse gas emission to deforestation and water use. **Choosing nutrition and sustainably sourced foods can reduce our ecological footprint and support human health....**As an individual, I think it's important to reduce meat consumption and support local farms that prioritize sustainable practices."

"...increase the viability of local farms, fisheries, food business, and workers. This objective outlines the **importance of uplifting local business owners and food distributors as they serve as an alternative from supporting multinational corporations that dominate the food supply.** These corporations hold large control and power over resources and production of food that can take away from the food supply and economic growth of smaller business that are often more diverse in providing important needs for a large number people in communities

"Like some of the other articles/videos that I have watched and read for this unit, it **seems that creating your own space for food growth through a garden is an effective and rewarding way to take control of your food.** The solution listed out by the organization is to diversify means of cultivating community gardens which would allow reconnection of urban and rural communities to increase food education and sustainability.

Related Student Learning Outcomes for Nutrition

- Evaluate the psychosocial and economic factors that influence food habits.
- Apply scientific principles to food safety, food preparation and storage, sustainability to food systems and food biotechnology to reduce foodborne illness and food waste.
- Evaluate the credibility and reliability of nutrition information.

Advanced Nutrition

A course for majors

Students take this course before transfer

- **Nutrition & Dietetics**
- **Food Science**
- **Kinesiology for Physical Therapy**
- **Biology and other pre-med majors**
- **Exercise and Nutrition Science**



Three-Phased Approach

Discussion Forum, Reading Forum and Research Project

Discussion Forum and Reading Forum

Discussion forum

- Read and discuss three sources from a curated list (discussion forum)
- Watch and discuss a film (or two) from the curated list (discussion)

Reading forum

- Select one scientific peer-reviewed article to read and discuss from a curated list (reading forum)

Research Project, Small Group

Projects were shared with campus community

Topics included

- Environmental Impact of Seafood Consumption
- Plant Based Diets
- How Sustainable Is Cell-Based Meat?
- What is Sustainable Agriculture?

Digital format for presentation

- Pre-recorded slide presentations
- Infographic
- Digital poster

Resources Provided to Students



Sustainable Eating
Find information on choosing sustainable foods, reducing food waste, eating local, and gardening at home.
[nutrition.gov](https://www.nutrition.gov)



Farm To School
Use the quick guide to search through our resource database. You can search by topic, setting, or keywords in order to find exactly what you are...
farmtoschool.org



What is A Sustainable Food System?
To minimize the impact and feed a growing population food systems are incorporating more sustainable practices including reducing food waste and conserving resources.
eatright



What is Sustainable Agriculture?
The goal of sustainable agriculture is to meet society's food and textile needs in the present without compromising the ability of future generations to meet their own needs.
Sustainable Agriculture Research & Education Program / Aug 23, 2023

Films that stream from the Miramar online library

- *The Kitchenistas*
- *Urban Agriculture and Creating a Sustainable Foodscape*
- *Food (Justice) for All*
- *Dry Farming*
- *Techno Food*
- *The Future of Food*

Journal articles available online from the Miramar library

- *Economic and environmental assessments...sustainable pork*
- *Proceedings of a workshop...social and economic domains of sustainable diets*
- *Promoting nutrition and food sustainability knowledge*
- *Sustainable food systems and the Mediterranean diet*
- *The effectiveness of food system policies to improve nutrition...*



Healthy Local Food for San Diego
We're launching a new way to support the purchasing power of our community members. Join us in contributing to the greater good!
Project New Village /

What We Do

The Alliance helps steward San Diego County Food Vision 2030, and supports our regional movement to transform our food system. We serve as weavers, community organizers, storytellers, capacity builders, and...

[San Diego Food System Alliance](https://www.san-diego-food-system-alliance.org)



California's Farm to School Program
California Farm to School Initiative is an interagency, multi-pronged effort to reimagine school meals while benefiting students, the environment, local farmers, and local economies. Farm to School is a win-win for...
Governor of California

The Research Project

Overview

- Develop a specific question about a topic related to nutrition and sustainability.
 - Investigate your question using peer-reviewed scientific sources.
 - Relate the topic to the field of nutrition, agriculture, public health or individual behaviors and how that affects sustainability, the environment, or climate change.
 - Identify and discuss a minimum of two nutrition- connected action steps that can be taken to reduce the climate burden as it relates to your topic.
 - Create a digital information display to convey your information in an organized, easy to follow way. Suggestions for how to approach that include, but are not limited to, a pre-recorded slide presentation, digital poster, newsletter, webpage, info-graphic, video, or something I have not thought of
- How many references? Do I need to cite sources?
 - Each person in the group will use and cite a minimum of five (5) sources
 - Focus on primary research and review articles and be sure you get articles that you can access for free (use the Miramar online library) and understand.
 - Ask questions! Learning to read these kinds of articles takes time, patience, brain pain and persistence.
 - Pick a citation format (MLA, APA, Chicago style) and stick with it. If you are in a group, the group will use the same format.
 - Cite within the work and include the reference list at the end.

Related Student Learning Outcomes

- Evaluate how different health conditions impact nutrient metabolism and nutrient utilization.
- Critique current topics in nutrition using reliable, credible sources of nutrition research.

Cultural Foods



Students focus on

- Factors influencing migration patterns
- Environmental impacts on food availability and customs
- Examine indigenous agricultural and food practices in the U.S. and abroad.

Related Student Learning Outcomes:

- Analyze the origin, development and diversity of food customs among geographic regions and migration patterns
- Examine the psychosocial and socioeconomic factors that influence food habits

Nutrition and Fitness



Emphasis placed a on food-first approach and explore environmental costs (and health risks) of

- bottled water
- over-emphasis of protein from meat and/or protein powders, when to choose water, water + a banana, or a sports drink
- facts and fiction of dietary supplements

Related student learning outcomes

- Analyze and critique dietary recommendations before, during and after exercise
- Examine nutrition problems affecting athletes.
- Critically evaluate nutrition research.

Next Steps



- **COA in Nutrition Equity & Sustainability (in development)**

- Currently working with our Advisory Board
- Developing curriculum (two new courses needed)
- Coordinating with CTE Dean
- Overview of award (a working draft)

- Students in Nutrition Equity and Sustainability program learn to address nutrition and other health issues related to food systems, nutrition equity and sustainability. They gain skills to view challenges from a systems perspective and understand the link between food systems, public health, and environmental sustainability. Students graduate ready to join the workforce.

Q & A

Opportunities



THE COMMUNITY COLLEGE CLIMATE SUMMIT

Join Us at C3CONVERGE 2025

Unlocking the Potential of Colleges in Climate Action
September 29-30, 2025 | Anaheim, CA

Save the Date!



**Center for
Climate Futures**
Supporting Economic and Climate Resilience in California

**Community Colleges and Center for
Climate Futures Webinar Series**

 **RECORDING LIBRARY** 

JUNE 17 SESSION
REGISTER NOW 

AUGUST 12 SESSION
REGISTER NOW 

**THE CLIMATE CHALLENGE:
A RESOURCE LIST FOR EDUCATORS** →

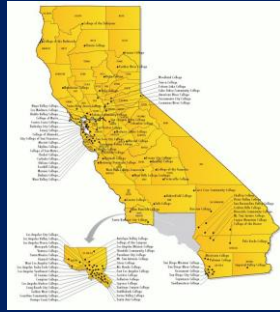
**Chancellor's
Climate Fellows
Program**

**Applications due
April 30, 2025**



California
Community
Colleges

**Community College
Faculty/Staff**, please take this 3
minute survey to put your
college “on the map” in the
Chancellor’s Office climate
curriculum landscape analysis.



Thank you!