

# The Climate Action Program at Chabot College



## Introduction

The Climate Action Program (CAP) at Chabot College is an empowering and ambitious new program that brings students, faculty, and the wider community together to learn and take action to address the climate catastrophe we are undergoing.

CAP understands that taking climate action implicates all academic disciplines and that literally every area of Chabot can bring important perspectives and expertise to bear on issues such as: environmental racism and classism, ecosystem collapse, climate change, food insecurity, species extinction, student political activism, local living economies, green building, and a wide range of other matters. For many years, faculty and staff from across the college have developed curriculum and programming to help our students engage the earth; CAP supports bringing these varied efforts and courses together. With intentionality, and yes urgency, as we have less than 8 years to cut greenhouse gas emissions to a level that might keep us under the 1.5°C mark; CAP raises the capacity for Chabot College to mitigate climate change impacts.

Beginning in Spring 2020, a climate action work group has been meeting to vet and shape the Climate Action Program. President Sperling has been very supportive of these efforts and recently announced a new position, Interdisciplinary Earth and Environmental Science, underscoring the determination to build interdisciplinary teaching and learning approaches to sustainability. The work group will suggest language and concepts to be integrated into the Educational Master Plan, as well as alignment and integration with our strategic plan and guided pathways. The Climate Action Program below outlines an initial draft of a vision that we have

gleaned from many conversations and meetings with colleagues, as well as inspiring examples from other higher education institutions.

- *For students*, CAP provides opportunities to deepen their academic knowledge, connect to their local culture, and develop leadership skills by working on pressing environmental issues. CAP supports students in taking action to steward a more sustainable, just, and equitable world. CAP provides educational training, hands on experience through project based learning, curricular resources, and culturally relevant education for students to become active and successful leaders in their communities to redress the compelling environmental and related cultural justice challenges we face.
- *For faculty and staff*, CAP offers comprehensive support for developing project-based learning opportunities of varying degrees of complexity and commitment. CAP also provides a forum for faculty and staff from across the college to share their expertise and insights about sustainability issues.
- *For the wider community*, CAP serves as an arena for bringing together relevant outside organizations and Chabot faculty and students. CAP will nurture “local experts”--citizens who possess untapped knowledge about the environment and community--and invite them to share their knowledge and insights with the Chabot community. CAP will provide opportunities for children from the community, who may live much of their lives in the “concrete jungle,” to engage with gardens and the natural world.

## **Statement Of Need**

We acknowledge that the issues that face us and that impact Mother Earth amount to an eco-battle for the very future of this planet. We believe that too often we--both students and faculty--are cut off from the natural rhythms of the planet, and that in order to repair our planet we need to--in a truly visceral and vital way-- engage with and contemplate the nature that surrounds us. CAP will provide those opportunities and experiences.

We acknowledge communities of color and low-income communities are on the front lines of eco-battles, and are often most impacted by environmental injustices. Our program will address the environmental issues that directly impact students, their families and the wider community.

Simultaneously, any college's academic disciplines, while they offer much in the way of technical and applicable ecological knowledge, don't always address the stark inequalities in systems of food, transportation, housing, energy and pollution that many frontline communities face. Nor do academic disciplines always tailor their content to address local issues. CAP will provide an arena and support for faculty to vary their teaching to meet these challenges.



## **The Program**

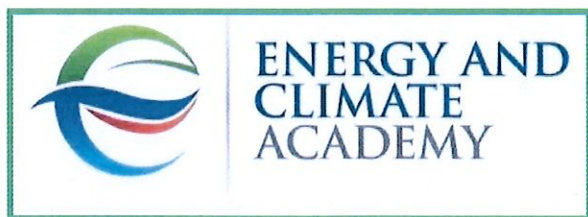
### Institutionalizing Climate Action at Chabot College



The Climate Action Program seeks to comprehensively impact the intellectual and institutional fabric of Chabot College. We believe that all new hires should be eco focused regardless of classification or discipline. All new buildings and renovations should adhere to the strictest level sustainability (LEED is not adequate enough). All of our buildings should be net zero energy. Climate action and equity should be the guiding principles of the Educational Master Plan. Green spaces on the campus should be reevaluated for agriculture and habitat restoration to promote biodiversity. Just as diversity, equity, and equality are woven into the moral and intellectual fabric of the college, so too should sustainability and climate action. It should be so ingrained as to be second nature to the identity and mission of the college.

As ambitious as these goals may appear, they are by no means unique or isolated. Chabot College is not on the leading edge of moving in this direction. Innumerable Higher Education think tanks, professional organizations, and individual institutions have been moving in this direction for at least a decade. For example, there is an inspiring collaboration between the CSU and the UC systems called, [UC-CSU NXTerra](#). It is high time that Chabot College take a leadership role in these matters--just as Chabot has done time and again over the years in matters of equity, cutting edge pedagogy, empowering student voice, and more.

### Interdisciplinary Climate Academy Certificate



Academia has long separated the world into disciplines. The result is that knowledge is cut off from itself. Many students graduate without any broad, integrated sense of the unity of things because they are taught in disciplines. David Orr, professor of Environmental Studies at Oberlin College, reminds us that “all education is environmental education. By what is included or excluded, students are taught that they are part of or apart from the natural world.”

Because nature is nothing if not interdisciplinary, the Climate Action Program will offer interdisciplinary certificates and pathways with an emphasis on earth action. CAP understands that climate action crosses all academic disciplines and that every area of Chabot can bring important perspectives and insights to bear on issues such as: environmental racism and



classism, mitigation and adaptation, food insecurity and sovereignty, student political activism, local living economies, green buildings, and a wide range of other matters.

[Sustainability](#) and other climate related majors are among the fastest growing majors at 4-year institutions. Many 4-years and community colleges have developed robust interdisciplinary climate programs, and now it is time for Chabot to do the same. The Interdisciplinary Climate Action Certificate will introduce students to environmental issues and teach students how to take immediate action to protect the planet by making “curricularized action” the core of these classes. The certificate comprises existing classes offered at Chabot as well as new classes being developed.

Catalogue statement: *The Climate Academy will offer one or more Certificate(s) of Achievement which align with transfer requirements and specific AAT degrees. The Academy provides students with the necessary knowledge, skills and experiences that bring a climate-informed perspective to any future major or career path. Moreover, the Academy provides knowledge, skills and experiences that help students make informed decisions as citizens and stewards of the planet.*

## Climatized curriculum



Writing in the [official journal](#) of the National Academy of Sciences, Morgan and Bruine de Bruin point out that “real-world problems in science, technology, and public policy such as climate change typically cannot be addressed adequately from the perspective of any single discipline.” They argue that to fight climate change it is crucial to work across disciplines, but that “too often, experts from these different fields do not know how to talk with each other. They may not know how to work

together, or even perceive the importance of doing so.”

As the image below shows, Chabot College features over 75 discrete academic disciplines. Yet, only ONE of these disciplines might appear to our students to be addressing our planet’s environmental crises--Environmental Studies. Given the scale and urgency of our global environmental issues, asking one discipline to shoulder the burden will not suffice. On the contrary, the Climate Action Program (CAP) supports ALL disciplines to “climatize” their curriculum. CAP offers professional development support for faculty to integrate a climate/environment lens into the classroom. Of course some disciplines and programs at Chabot have already made great strides to do just this, and CAP will support and help to scale this work, as well as serve as a network hub to bring faculty together from across the disciplines to create synergy around work being done in individual disciplines.

CLASS-Web Schedule of Classes Spring 2020

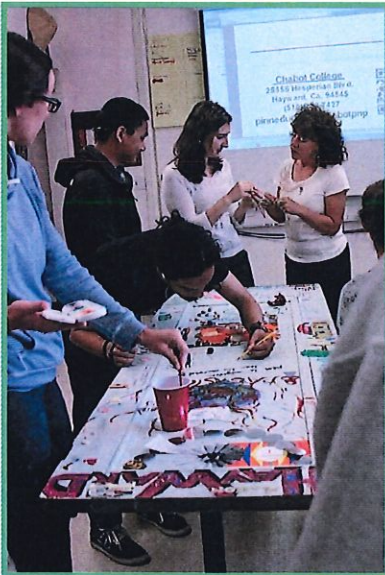
Spring 2020 Registration Begins November 15th by Priority Group and Number

This is the class schedule for the term. You may click on a CEN below to see additional information about the course. When you have finished click the BACK button on your browser or the Return to CLASS button at the bottom of the page.

|                                  |                                 |                                |
|----------------------------------|---------------------------------|--------------------------------|
| Adaptive Physical Education      | Administration of Justice CC    | Anthropology CC                |
| Apprenticeship/Scholarship Force | Apprenticeship-Fire Life Safety | Architecture                   |
| Art - CC                         | Art History CC                  | Arts and Sciences              |
| Astronomy                        | Automotive Technology CC        | Biological Sciences Anatomy CC |
| Biological Sciences Biology CC   | Biological Sciences Botany      | Biological Sciences Micro CC   |
| Biological Sciences Physics CC   | Business CC                     | Chemistry                      |
| Business                         | Communication Studies           | Computer Application Systems   |
| Computer Science CC              | Construction Electronic System  | Dance                          |
| Dental Hygiene                   | Digital Media                   | Early Childhood Development    |
| Economics CC                     | Electronic Systems Technology   | Electronics and Computer Tech  |
| Emergency Medical Services       | Engineering                     | English CC                     |
| English as a Second Language     | Entrepreneurship                | Environmental Studies          |
| Etiquette Studies                | Film                            | Environmental Studies          |
| French CC                        | General Studies                 | Environmental Studies          |
| Health                           | Health Aging Adult              | Geography CC                   |
| Humanities                       | Industrial Technology           | History CC                     |
| Japanese                         | Knowledge CC                    | Interior Design CC             |
| Library Skills CC                | Machine Tool Technology         | Learning Skills CC             |
| Math CC                          | Medical Assisting               | Mass Communications CC         |
| Math-Applied CC                  | Music U.S. Theory and Music CC  | Music Recording Technology     |
| Nursing                          | Nursing                         | Music Performance CC           |
| Philosophy                       | Photography CC                  | Physical Education CC          |
| Physics                          | Planning                        | Political Science CC           |
| Psychology CC                    | Psychology Counseling           | Real Estate                    |
| Religious Studies                | Service Learning                | Shorthand                      |
| Sign Language CC                 | Technology CC                   | Spanish CC                     |
| Theater Arts CC                  | Training                        | Writing Technology CC          |

Return to CLASS Web homepage

## Curricularized Action



When students learn about the state of the planet, they often ask two questions: why didn't anyone tell me and what can I do about this? Their immediate response to the crisis is to *do* -- to take action. The Climate Action Program believes it is the role of the college to help students mitigate climate change and respond to environmental challenges by affording them opportunities to engage in interdisciplinary curricularized action. As David Wallace-Wells reminds us repeatedly in [\*The Uninhabitable Earth\*](#) the science that explains climate change has been long settled. Responding to climate change is no longer only about understanding the science of warming. It is about how humans will respond to a warming planet. CAP supports this by providing ongoing and comprehensive Professional Development for faculty to leverage classroom teaching approaches that draw on Project Based Learning, Planet Based Learning as well as Community Based

Learning.

We know that these teaching approaches work because we have seen curricularized action "in action" over the last several years. Classes have presented proposals to ban single use plastics on the campus to administrators and soon to the board of trustees. Passion and Purpose classes have organized events, such as Climate Action Jam, to break climate silence and address eco anxiety. Many classes have partnered with the Fresh Food and Life Pantry to



grow cultural and native produce in the Knowledge Garden, which is then disseminated by FRESH. Classes have developed proposals for community gardens in South Hayward to increase resilience and sustainability in our community. FYE classes have learned about and promoted sustainable business practices for future entrepreneurs. Classes have organized beach and campus clean ups and used the trash they collected to create art and instruments.

Students have the capacity, expertise, and passion to do more than just learn about climate change. They want to take action to protect the planet. We support our students by making Climate Action a central component of our classes.

## Proposed Discipline: Agroecology



A recent article published in [National Geographic](#) investigates the challenges we face in feeding the planet. By 2050, the population is expected to grow to 9.7 billion people. Scientists, policymakers, and farmers are concerned about the capacity to feed everyone. With fewer than 1.3 billion farmers, the planet -- and the people who inhabit it -- needs more people growing food. Eric Holt-Gimenez, writing for [FoodFirst.org](#), shares the sad fact that over 2 billion people today are food insecure and malnourished despite the fact that we are currently growing enough food to feed 10 billion people. He argues that this is largely due to the mismanagement of food storage and transportation, unsustainable agricultural practices, food waste, and factory farming. Chabot students can take action to change the inefficiencies and inequities in our global food economy and learn to grow their own food through Agroecology.

Agroecology is the study of ecological processes applied to agriculture, food systems, and land use. In their seminal treatise, ["Agroecology, Scaling and Interdisciplinarity."](#) Dalgaard and Hutchings argue that agroecology is inherently interdisciplinary and that it is distinguished by its "integration between disciplines and across scales." As such Chabot is well-positioned to create an agroecology component to the CAP because the college is blessed with robust science and social science disciplines from which agroecology draws, including: Environmental Science, History, Economics, Geology, Sociology, and more. In addition, Mendez writes that agroecology lends itself to "participation and transformative action"--two features that are central to the pedagogic vision of CAP and that most ensure student success.



## Proposed Discipline: Sustainable Food Systems



Food systems contribute between 26-37% of the total greenhouse gases in the atmosphere. Our global food economy is undeniably one of the most detrimental sectors to the planet. Despite the inefficiencies and inequities in our food systems, the food sector offers the greatest opportunity for mitigating climate change. Of the top 100 solutions to mitigate climate change, [Project Drawdown](#) lists eight food and agricultural solutions in the top 20. Further, the 2019 IPCC report concurs when they write that “hundreds of millions of affluent people in the Northern Hemisphere need to change their diet, eating many more plants and much less meat—and especially much less red meat—than they do now.”

The sustainable food systems component of the Climate Action Program will teach students how to prepare and cook food that is good, clean, and fair. The program will address food waste and food insecurity, and teach students how to lower their carbon footprint through their diets. Not only will students learn how to cook food that is eco-friendly and equitable, students will also learn how to sustain culture and communicate through food. Students will learn about the advantages of locally sourced food, including food gleaned from Chabot’s garden, and will be given opportunities to plant and harvest food grown in the garden.

The Sustainable Food Systems program will also address the Hayward area’s widespread problem with food deserts, and the attendant health problems that the community faces, including obesity and diabetes rates that are significantly higher than state averages.

## Climate Action Nerve Center



Chabot personnel are concerned and passionate about the state of the planet. Yet because we are siloed in disparate parts of the campus, the products of our work and passions are rarely seen. The Climate Action Program addresses this problem by creating a Climate Action nerve center, that exists both virtually and on campus. This center will unify and scale the efforts being made around campus to mitigate climate change.

CAP’s Climate Action nerve center will serve as a hub for campus initiatives, community engagement, and action-based learning. It is a collaborative



makerspace designed for team teaching and action- and project-based learning. The center supports students, teachers, and staff to implement projects on campus and in the wider community. The center supports teachers to incorporate Climate Action into their curriculum by providing teaching and learning resources (books, articles, tools, videos, podcasts, and other media), assistance with developing Climate Action units, sample assignments and syllabi focused on Climate Action for classes across the curriculum, connections to colleagues, student groups, and City of Hayward staff and community members, and a space to showcase student work.

Such a space will display student projects on environmental justice, single use plastics, regenerative gardening, biomass, living buildings, habitat restoration, and more. When students display their work, it becomes curriculum for future classes. Teachers bring their classes to learn from this work, thus creating a chain of collaboration and curricular sustainability.

Furthermore, the Nerve Center will monitor and analyze data, with the help of cutting edge tools and instruments, what is happening around the world. We will show data on all core aspects of climate change impacts--global temperature, sea level rise, drought, food production, climate refugees, conflicts, health, species, ecosystems, melting ice, coral reefs, and so on, as well as core carbon conscious actions--policy, political activism, sector carbon conscious transformations, mitigation efforts, and all manner of strategies being implemented to drawdown carbon PPM. Chabot classes and students will interact with the Nerve Center as part of their learning and doing strategies. Upping the real time response and the relevance of our teaching and learning is the only absolute way we can take the 180 degree turn and face this unfolding planetary disaster. The living earth, as it responds to climate change, will be a resource to us, and the human suffering and activity that emanates from it.

### The land on which Chabot is situated: a “natural” classroom:



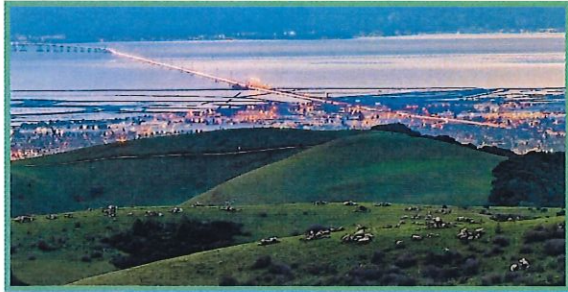
In the 2019 IPCC report, the report's more than 100 authors argue that to save planet Earth, the Earth's very land itself “must be made into a tool in the climate fight.”

Treating our Earth as a classroom setting is a very important facet of the Climate Action Project. Although Chabot College is an urban campus, there are still ample opportunities to accomplish this. For example, Chabot's [Knowledge Garden](#) has served as a proof of concept of this kind of teaching and learning for the past 5 years. In addition, Chabot's Maintenance and Operations personnel

possess a deep well of knowledge that can be (and has been) integrated into classroom settings. Soil science, AgroEcology, No-till carbon conscious organic gardening, native plant restoration--all of these academic endeavors are best served when students can (literally) get their hands dirty.



## Community-based Cultural and Environmental Collaborations



Students are rarely provided the opportunity to engage with their communities in academic settings, which prevents students from making connections between what they learn in a classroom and the “real world.” However, the community is a rich source of intellectual inquiry, and designing curriculum around the issues and opportunities that communities experience more

effectively engages students and increases their success.

For example, [Hayward](#) is one of the leading cities in the nation on curbing energy use by developing alternative energy platforms. CAP seeks to leverage this expertise. The stakes for collaborating could not be higher. By 2100, scientists predict California will experience a minimum of 12 inches of sea level rise. The City of Hayward has undertaken initiatives to curb emissions and to explore mitigation strategies. Chabot College has worked and can continue to work with -- and learn from -- the city on these endeavors.

The City of Hayward has been an essential partner for Chabot instructors engaged in curricularizing Climate Action and for promoting culturally responsive teaching. Since the Student Initiative Center began to [partner with the City of Hayward](#), over 2,000 Chabot students have had the opportunity to engage with and learn from community members as well as city staff and council.

Hayward has partnered with Chabot teachers on a [Water Needs Initiative](#) that was funded by Proposition 1. Chabot students have also hosted several cultural festivals in parks around the city to celebrate diversity and to showcase student proposals for addressing some of the challenges the community experiences. At these festivals, students presented proposals for community gardens and biophilic landscaping and design. They shared low-carbon food recipes and they taught community members about single use plastics, the effects of sea level rise, grey water systems, and solutions community members can implement to mitigate climate change.

CAP supports Chabot teachers and students to collaborate with the wider community and learn from local experts about sustainability practices, legislation, and job opportunities.

## Campus Extracurricular Actions



Daniel Schrag, who directs the [Harvard Center for the Environment](#), recognizes that positive change often comes from extracurricular grassroots efforts on a campus. He writes, "Student activism is exactly what we need, and the exact demands seem less important than the fact that they are actually mobilizing and demanding change." The Climate Action Program (CAP) agrees that many of Chabot's best efforts to respond to our planet's disparate crises are driven by students and take place outside the classroom setting: in clubs, student senate, individual

student initiatives.

In addition to students, Chabot classified and faculty staff members have spearheaded important projects and campus-wide initiatives that heal and protect our environment. For example, for several years Chabot personnel have organized and hosted a highly ambitious week long program of climate and environment events as part of Chabot's "Earth Week." As EarthDay.org's website banner proclaims, "Make Every Day Earth Day." Working with the organizers of Chabot's Earth Week, this is indeed the goal of the Climate Action Program.

CAP believes that these sorts of efforts are a central feature of this program. As such, CAP is poised to support grassroots campus efforts in 3 ways: helping to focus and grow nascent grassroots endeavors; linking grassroots efforts to campus stakeholders (programs, teachers, disciplines) that can offer support and synergy; providing an arena for the sharing out of such efforts.