



Climate Action Lab

10-session Hybrid-Learning Course

[Interactive Course Overview \(Subject to Change\)](#)

Course Materials: Computer or tablet for online webinar participation; all course reading, listening, and viewing materials are free online resources

Instructional Team: Dan Sonrouille, Ruthie Gold, Cora Neville, Aysha Khan

Student Instructors: Jolie Villegas (Columbia University), Hamzah Jahveri (Yale University)



Course Description

Climate change requires global action and local solutions. This Lab will set up student change-makers to make positive, measurable change in their school or neighborhood communities. Students will investigate, critique, and learn from the best environmental policies and climate action movements—past and present. We will explore case studies, data sets, and the impact of the U.N. Sustainable Development Goals. Climate action experts will visit the Lab and advise students on their collaborative and individual student projects. Inspired by youth-led movements, like the Sunrise Movement, students will use advanced digital tools (Yale Program on Climate Change Communication's interactive map) to develop two projects: a communal project and an individual project. Using the latest advances in data science, all Climate Action Lab projects will push for measurable change in local communities.



Course Goals

1. Using the UN Sustainable Development goals as a framework, describe the climate crisis in different ways and effectively communicate its urgency using a variety of tools and disciplines.
2. Learn from successful environmental activists about grassroots movements and local climate solutions; learn from leading climate scientists about predictive technologies and global climate solutions; learn from Indigenous activists about traditional practices and climate knowledge.
3. Examine the most successful actions taken in the global climate movement in the last few decades; gain and apply working knowledge of political organizing at the national and local levels, along with effective forms of youth activism and progressive climate policy proposals (e.g. the Green New Deal).
4. Develop tools to observe the effects of climate injustice on your local communities and answer questions such as: How is the ecology of your neighborhood changing? Which community in your city is most impacted by extreme weather events (flooding, storms, fires, droughts, etc.)? What does environmental racism look like in your city?
5. Craft a local climate action plan to address a specific issue involving climate injustice in your community.



Final Portfolio Project

By the end of the course, students will have planned a climate action project or event that addresses a local climate issue or injustice they care about; all projects will have a measurable impact on local communities' engagement with climate justice. Potential projects include coordinating a teach-in featuring multiple climate activists; filming a creative video (e.g. music video) that highlights a climate injustice; and/or a video montage public service announcement. All projects will be digitally archived in a format compatible with leading online high school and college applications.



Drop in Orientation Session

Note: There will be a required kick-off orientation session before Week 1 to equip all students to use Google Classroom and digital portfolio tools.



Dan Sonrouille, Lead Instructor

Dan Sonrouille brings almost 20 years of experience in teaching, coaching, and curriculum development to his role. Dan has been the founding member of three NYC high schools where he designed and taught numerous science courses while also serving in a variety of teacher leadership roles. Prior to joining MeshEd, Dan was the Director of STEM for Ascend Public Charter Schools, where he oversaw the creation and implementation of all high school math and science curricula, coached instructional leaders, and provided strategic support to the high school. Dan began his career as a New York City Teaching Fellow after working in research at Albert Einstein College of Medicine. Dan holds school building leadership and district curriculum coordinator certifications in his home state of Maine. Outside of his role at MeshEd Dan is an adjunct professor of science content at Relay Graduate School of Education.



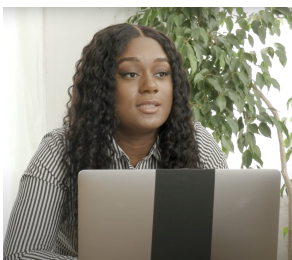
Ruthie Gold, Co-Lead Instructor

After earning her master's in Environmental Conservation Education from NYU in 2019, Ruthie began working as a consultant for the Yale Program on Climate Change Communication. Before then, she was a high school science teacher. As the Student Engagement Coordinator at the Garfield Park Conservatory and School Programs Educator at the NY Botanical Gardens Ruthie has a passion for environmental education, particularly in underserved communities.



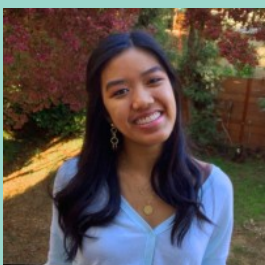
Aysha Khan, Associate Instructor

Aysha joined MeshEd in 2020 and currently serves as a Research Associate. Aysha graduated in 2020 with a B.A. in Biology and Chemistry from Wesleyan University. Previously, Aysha has served as the Director of Program Development for Elena's Light, a non-profit devoted to providing free in-home ESL tutoring to refugee and immigrant women from the Greater New Haven area. Combining her passions for business development, public health, and social justice, she led analyses that transformed, operationalized, and scaled meaningful impact across the organization. In addition to her core roles, Aysha is a pillar for equity and progress in her community and she works actively with the Yale Refugee Clinic to promote sustainable, equitable solutions for health disparities in our world.



Cora Neville, Associate Instructor

Education has always been at the forefront for me. I've earned scholarships to study at Hofstra University, and to obtain a Master's from Fordham University. I joined Teach for America in 2015 and became a middle school Science teacher, excelling in this role and earning the privilege of serving as an Assistant Principal. I am currently a doctoral candidate at Columbia University and I plan to design processes and policies that support schools in recruiting, developing, and retaining Science educators and leaders who are better positioned to build community responsive schools that empower our students to lead in STEM fields.



Jolie Villegas, Student Instructor

Jolie is a recent graduate of Wesleyan University where she majored in Environmental Studies and Biology. She is passionate about environmental justice, sustainability, and mitigating climate change's impact on marginalized communities. This fall, she will be pursuing her Master's in Climate and Society at Columbia University.

Visiting Guest Experts and Core Course Content

2-3 guest experts will join particular class sessions for interactive interviews with students

Dr. Kat Owens



Katharine Amory Owens is an associate professor in the Department of Politics, Economics, and International Studies at the University of Hartford in Connecticut. She is an interdisciplinary scholar who seeks to link environmental science with policy. After studying water policy for 15 years, Owens began researching marine litter in 2015. She works to train communities to collect debris using scientific methods so that they can share data about local conditions with policymakers. She has spent 2019 collaborating with students and faculty at the University of Kerala in Thiruvananthapuram, India, on marine litter. Owens also has a long-running interest in understanding knowledge, attitudes, behaviors, and perceptions about the environment.

[Click here](#) to learn more about her work. Watch Kat Owens tik tok videos addressing plastic pollution and her ongoing research [here](#).

Meghanlata Gupta



Meghanlata Gupta (Bahweting Anishinaabe) is a South Asian/Ojibwe student at Yale University. Her research and organizing work focuses on Indigenous education, storytelling, and advocacy. On campus, she is the president of the Association of Native Americans at Yale and a member of the Native American Cultural Center house staff. She is also the founder of *Indigenizing the News*, a digital magazine dedicated to Indigenous representation in news media.

[Visit her website](#) to learn more about her work. Read through the work featured in *Indigenizing the News*.

Hamzah Jhaveri






Hamzah Jhaveri, Student Instructor
Hamzah is a rising junior at Yale University, where they study Anthropology and Energy Studies. Hamzah's academic interests span across disciplines but have recently included environmental and energy justice movements in the United States. They are an organizer with the Yale Endowment Justice Coalition, a student-led divestment group, and Sunrise New Haven, a youth-led climate justice movement. Beyond organizing, Hamzah serves as the Editor-in-Chief of the Yale Herald, Yale's only weekly publication, and formerly worked at the Yale Sustainable Food Program and the Yale Program on Climate Change Communication.






[Click here](#) to explore the Yale Program on Climate Change Communication.

Core Course Content

Together, we will explore the writing of and interviews with these public figures.

<p style="text-align: center;">Greta Thunberg</p>  <p>Greta Thunberg, a 17-year old Swedish environmental activist who has motivated youth activist groups around the world to protest for climate change action with her campaign Skolstrejk för Klimatet.</p> <p>Click here to watch Greta Thunberg's interview on PBS Newshour.</p> <p>Click here to read a profile about Thunberg's approach to being interviewed in The New Republic</p>	<p style="text-align: center;">Xiuhtezcatl Martinez</p>  <p>Xiuhtezcatl Martinez, Youth Director at Earth Guardians, a multigenerational, youth-led climate justice organization. A renowned young, Indigenous climate activist known for his powerful hip-hop music.</p> <p>Watch Xiuhtezcatl's music video for his song, "Young". Learn more about his work at Earth Guardians.</p>	<p style="text-align: center;">Isra Hirsi</p>  <p>Isra Hirsi, a youth activist and co-Executive Director of the U.S. Climate Strike, one of the largest climate mobilizations in the nation's history. Hirsi has won numerous awards and is on BET's Future 40 List.</p> <p>Watch Hirsi's TED talk here. Read her article on the climate movement and representation in <i>Grist</i>.</p>
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Course-at-a-Glance

<p>Content Theme: Foundations of Climate Change Project Stage: Introduction and Ideation</p> <p><i>"There's one issue that will define the contours of this century more dramatically than any other, and that is the urgent threat of a changing climate." -President Barack Obama</i></p>	
<p> Session 1: Welcome to Climate Action Lab</p> <p>Goal: Get to know your classmates and understand our personality types.</p> <ul style="list-style-type: none"> • What are my personal goals, and who is my community of learners? • Why is climate change important and why should I act now to make a difference? <p>Want a sneak peak? Check this out:  Click here to listen to a past student's action project.</p>	<p> Session 2: Climate Change Foundations</p> <p>Goal: Learn climate change science foundations and deep dive into an impact area of interest.</p> <ul style="list-style-type: none"> • What does the data tell us about climate change and what is driving it? • Why does climate change matter to me and my community? <p>Want a sneak peak? Check this out:  Click here to watch a video of actor Robert Redford discussing the impact of the fossil fuel industry on climate change</p>
<p> Digital Deposit: Upload goal setting template and summarize key findings from climate science research</p>	

**Content Theme: Using Data to Inform a Plan of Action
Project Stage: Vision Board & Project Planning**

"You must take action. You must do the impossible. Because giving up is never an option." -Greta Thunberg


**Session 3: Visit From a Climate Scientist:
Guest Expert: Kat Owens**

Goal: Learn how scientists use data to explain climate change and spur action to stop it

- How can data help me understand climate change better?
- How can data support my plan of action?

Want a sneak peak? Check this out:

 [Click here](#) to read about Dr. Kat Owens work with the National Geographic Explorers

 [Click here](#) to watch a video from National Geographic about carbon emissions during the COVID-19 pandemic.

Session 4: PBL Guided Workshop 1: Taking Action Against Climate Change

Goal: Select project that will inform community members about climate change and its impacts

- What's the most compelling scientific evidence that supports my action plan?
- What are concrete actions our communities can take to mitigate climate change?

Want a sneak peak? Check this out:

 [Click here](#) to watch to Great Thunberg give a speech at the United Nations

 **Digital Deposit:** Upload climate action project plan and identify key data that you'll use to support it

**Content Theme: Learning from Climate Action Movements
Project Stage: Digital Portfolio**

"It's clear that any politician who wants to be taken seriously by our generation needs to have the courage to stand up to the fossil fuel billionaires and back a Green New Deal." -Varshini Prakash

Session 5: How to make change happen in your communities

Goal: Understand how to organize and mobilize others to stop climate change

- What can current climate change movements teach me about taking action in my community?
- How do I motivate others to take action against climate change?
- Mid-Course Survey

Want a sneak peak? Check this out:

 [Click here](#) to watch a video of peaceful protest for climate action.

Session 6: PBL Guided Workshop 2: Work With Guest Expert to Refine Projects.

Goal: Collaborate with guest expert to refine action plan to achieve measurable change.

- What can I glean from an expert environmental action organizer to support my project?
- How can I create a project that yields measurable change in my community?
- Review Mid-Course Survey and reset personal goals

Want a sneak peak? Check this out:

 [Click here](#) to learn more about the Sunrise Movement.

 **Digital Deposit:** Identify method of communication for your action plan and summarize 2-3 strategies you learned from our guest expert that will help your project design or implementation.

**Content Theme: Refining Your Project
Project Stage: Project Plan Development**

"It's clear that any politician who wants to be taken seriously by our generation needs to have the courage to stand up to the fossil fuel billionaires and back a Green New Deal." -Varshini Prakash

 **Session 7: Environmental Racism & Climate Justice**

Goal: Explore the disproportionate impact of climate change

- What are climate justice and environmental racism?
- How would the Green New Deal address our current climate crisis?

Want a sneak peak? Check this out:



[Click here](#) to learn more about the environmental racism

 **Session 8: PBL Guided Workshop 3: Workshopping Your Project**

Goal: Finish our climate action projects

- Develop: This will be a work period for students to ask questions and continue refining their work for the final project/ presentation

Want a sneak peak? Check this out:




[Click here](#) to see an example of a digital portfolio

 **Digital Deposit:** Upload a refined action project plan to incorporate to include data and/or stories from disproportionately impacted groups.

**Content Theme: Project Presentations
Project Stage: Practice & Present**

"We do not inherit the earth from our ancestors, we borrow it from our children." -Suquamish and Duwamish Proverb

 **Session 9: PBL Guided Workshop 4: Preparing Digital Portfolios & Practicing with Feedback**

Goal: Work collectively to practice and provide feedback on our group's action projects.

- How can I give a compelling and engaging presentation?
- How can I set up a digital portfolio to document my progress during the Lab?
- What did I learn from the feedback on my practice presentation?

 **Session 10: Final Presentations**

Goal: Share and give feedback on final presentation. Take final course survey.

- What have you learned about your personal creative process?
- What do you want to do next?
- Final Survey

 **Digital Deposit:** Final project and digital portfolio

About the Brooklyn Action Lab

Brooklyn Action Lab offers unique project-based learning experiences designed by Meshed, an education collective whose mission is to increase access to high quality project based learning for all adolescents. Learn more about our Lab offerings on our [website](#).