

Congrats to the 2024-25 Steinbrenner Doctoral Fellows!

A new group of PhD students will be supported by the Steinbrenner Institute in their environmental research. Learn more about the fellows and their research. > p. 1

New faculty and staff at the Steinbrenner Institute

The institute continues to grow, welcoming new faculty and staff this summer. Read about Dr. Erin Dean and Kara Scully, former ESS student. > p. 2-3

Environmental and Sustainability Studies Statistics

20 students graduated from the ESS program this academic year. Among these students are Kerry Mills and Helen Zhao. Read about their experiences and achievements. > p. 4-5

THE ENVIRONMENTALIST

Education and Research at the Steinbrenner Institute

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Congratulations to the 2024-2025 Steinbrenner Institute Doctoral Fellows!



Nana Oye Djan (Engineering and Public Policy - Presidential Fellow)

Nana Oye Djan is advised by Dr. Paulina Jaramillo, Dr. Barry Rawn (CMU-Africa) and Dr. June Lukuyu (University of Washington). Using remote sensing data, Nana Oye hopes to contribute to current efforts in monitoring and understanding the state of freshwater in Africa. Her current research focuses on quantifying and attributing the effects of climate change on inland surface water resources in Sub-Saharan Africa, to inform policy on climate mitigation, intervention and adaptation strategies.

Avery Sonora Williamson (Chemical Engineering)

Avery Sonora Williamson is advised by Dr. Victoria Webster-Wood of the Biohybrid and Organic Robotics Group. Her research revolves around the development of soft biohybrid robots for aquatic environmental monitoring, and her current work aims to characterize sustainable, biodegradable, hydrogel materials for applications in 3D bioprinting actuators. She hopes to develop methods for the design and manufacturing of biohybrid systems that reduce the harmful impact of exploratory science on natural ecosystems.



Jacob Lumpkins (Chemical Engineering)

Jacob Lumpkins is advised by Dr. Hamish Gordon. He received his bachelor's degree in chemical engineering from Vanderbilt University. His research focuses on understanding the production of aerosol particles, particularly in low-sulfur environments, and how they impact the radiative balance of the atmosphere. Jacob is currently using the Met Office Unified Model to study the chemistry of alpha-pinene along organic pathways and how it affects the rest of the climate using global simulations and box modeling.



Kyla Fullenwider (Design)

Kyla Fullenwider is a PhD Researcher and Teaching Fellow at Carnegie Mellon University's School of Design and is advised by Dr. Jonathan Chapman. Prior to CMU, she was a senior advisor to the U.S. Surgeon General and research faculty and a fellow at Georgetown University. Currently her research focuses on the implications of public trust in science on environmental policy, including what leverage points and design interventions can create systemic change in response to the environmental crisis.



New people at the institute

Erin Dean

Dr. Erin Dean is an environmental anthropologist whose research and teaching explore the intersections of environmental and social justice. She will be joining the Steinbrenner Institute this summer as a core faculty member of the Environmental and Sustainability Studies program.

In addition to renewable energy and electrification, Dr. Dean has conducted research on gender, cosmology, community-based conservation, agriculture, participatory forestry, and political authority in Tanzania and Zanzibar. Her teaching background includes a broad range of courses in the environmental humanities and qualitative research design and methodology.



Welcome New Faculty Affiliates, Cheng Li and Fethiye Ozis!



Cheng Li

Assistant Professor of Chinese Studies, Modern Languages

Dr. Li is a literary scholar and cultural historian of modern China. His main research engages with modern Chinese environmental literature (ecocriticism), film, and history. His research interests also include science fiction, migration studies, and Sino-African relations. His dissertation earned the Marston Anderson Prize for the best dissertation in East Asian department at Yale University in 2022. Dr. Li's first book, *Contested Environmentalisms: Trees and the Making of Modern China*, is under contract with Stanford University Press.



Kara Scully

Kara Scully is an alum of Carnegie Mellon University, where they studied Chemical Engineering and pursued a minor in Environmental and Sustainability Studies. Kara recently joined the institute as the new program assistant. They took some time after graduating to explore Pittsburgh and work with a small sustainable business.

Reflecting on their time as a student at CMU, Kara says that some of their favorite courses were *Climate Fictions* and *Chemistry and Sustainability*. The technical courses they took reinforced vital math and science skills, and both technical courses and humanities courses expanded their knowledge and love of sustainability overall. The ESS program's interdisciplinary nature taught Kara the value of problem solving with a diverse team. They are excited to continue their connection with CMU and the institute as the new program assistant.



Fethiye Ozis

Assistant Teaching Professor, Civil and Environmental Engineering

Dr. Ozis enjoys every dimension of being an engineering educator. She teaches across the curriculum and conducts research related to engineering classrooms and innovative pedagogical strategies. Dr. Ozis has previously taught at Northern Arizona University and University of Southern California. She holds a B.S. in Environmental Engineering from the Middle East Technical University, Ankara, Turkey and M.S. and Ph.D. degrees from the University of Southern California. She is a licensed Professional Engineer (Environmental) in Arizona.

Congratulations to new alumni of the undergraduate Environmental and Sustainability Studies program!

16 students graduated with an ESS minor during the 2023-2024 academic year and four students graduated with an ESS additional major.

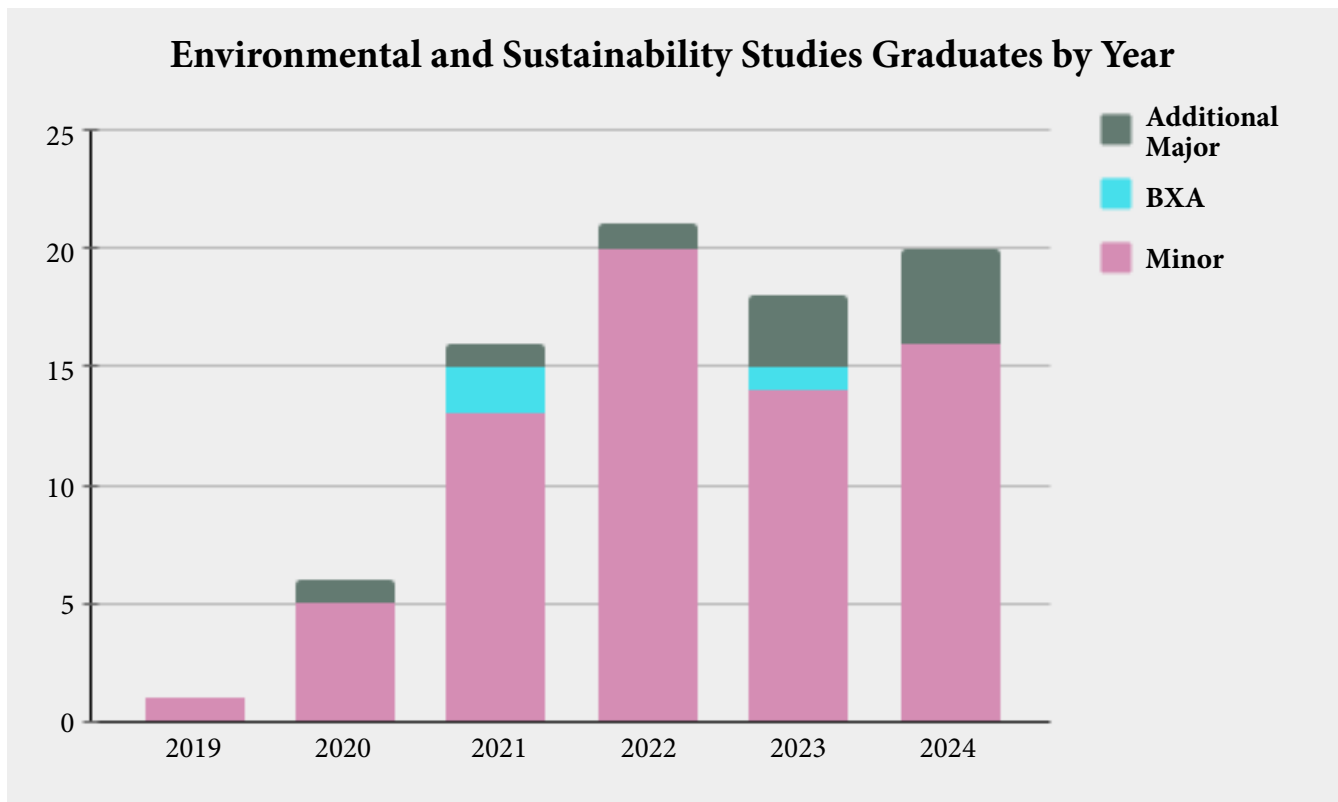
2024 Graduates with a Minor in ESS:

- College of Engineering: 7 students
- College of Fine Arts: 7 students
- Dietrich College of Humanities and Social Sciences: 1 student
- Mellon College of Science: 1 student

2024 Graduates with an Additional Major in ESS:

- Dietrich College of Humanities and Social Sciences: 1 student
- Mellon College of Science: 2 students
- Tepper School of Business: 1 student

The graph below shows the rate of graduation from our undergraduate program since the minor was created in 2018.



As of summer 2024, there are 28 students with a declared minor in ESS and 22 students with a declared additional major in ESS.



Kerry Mills

BS 2024 Technical Writing, Environmental and Sustainability Studies Additional Major

Kerry became interested in urban scholarship and environmental justice in her home city, Yonkers. She cultivated a love and curiosity for community work in particular during her time at a local nonprofit, Groundwork Hudson Valley. In college, her research focused on how communities articulate environmental crises and modes of placemaking. She has closely examined the Pittsburgh region not only as a (post) industrial archive and landscape but also as a place where people are introducing environmental policies and concepts like land banking and embodied activism at multiple scales.

The ESS major pushed Kerry to consider different sets of vocabularies, concepts, and angles concerning the environment- even down to the word 'environmental.' Some of her favorite classes were from the College of Fine Arts within architecture and design. She simultaneously explored

the fundamentals of these fields while also broadening her interests in industrial pollution, modes of resistance, and participatory research. After graduation, Kerry will begin her master's degree in city planning at MIT. She hopes to continue to learn and engage with communities in realizing environmental impacts and futures.

Helen Zhao

BS 2024 Economics and Statistics, Politics and Public Policy Minor, Environmental & Sustainability Studies Minor

Helen has always been interested in environmental issues, especially in clean air and water, and more recently in clean energy. Through the ESS minor, Helen explored and developed her interest at the intersection of environmental issues and economics by taking classes focusing on this cross-section. Most notably, she took "Sustainability, Energy & Environmental Economics" with Professor Nicholas Muller where she learned to apply economic tools and models to characterize solutions for environmental issues resulting from market failures and promote sustainable growth. Her courses ultimately led to her senior honors thesis, "Impacts of Socioeconomic Status and Minority Population on Childhood Blood Lead Levels in Pennsylvania."

As a member of the Spring 2024 cohort of the CMU Washington Semester Program, Helen got the opportunity to intern in the U.S. Congress Joint Economic Committee, where she integrated economics and environmental research skills to draft fact sheets on topics such as groundwater's economic benefits, and fusion energy. Helen will be working at Wells Fargo's Corporate Risk department after graduation and hopes to attend law school in the future, focusing on transactional, energy, and environmental law.



Steinbrenner Institute Hosts Successful Annual Sustainability Symposium

The institute hosted its 2024 Sustainability Symposium on Friday, March 29th. The annual symposium is an opportunity for students at CMU to showcase projects and research of theirs which relate to sustainability in some way. This year it saw around forty student projects of various disciplines from undergraduate, masters, and doctoral students.



The symposium offered participants two prizes and was judged by Ginger Brooks Takahashi (Artist & Adjunct Professor at CMU), Matthew Mehalik (Executive Director of the Breathe Project), and Masoud Sayles (Senior Program Manager at Grounded Strategies).

This year's \$1,500 Travel Awards were awarded to:



Suzy Li, PhD student in Architecture

"Assessing Social Equity and Urban Heat Risks, using Machine Learning on Remote Sensing Imagery: A Case of Pittsburgh"



Debojyoti Chakraborty, PhD student in Chemistry

"A promising strategy for reducing the water intensity of the fabrics dyeing Industry based on NewTAML/hydrogen peroxide"



Special thanks to judges for their time and careful review of projects and student participants for their captivating work.



Good Luck in LA, Kathy!

After over two years as the institute's program assistant, Kathy Zhang will be leaving CMU this summer to pursue her master's degree in urban and regional planning at the University of California, Los Angeles.

Kathy feels incredibly fortunate to have been able to come back to CMU to work for the Steinbrenner Institute after graduating in 2021 with a BHA in Environmental and Sustainability Studies and Art. During her time as program assistant, she organized a variety of events, revamped the institute's website, created a database for the undergraduate program, helped organize a faculty hire, and did much more. She also took a few courses while working, which ultimately fortified her decision to go back to school.

Kathy would like to thank everyone at the institute, but especially Abigail Owen, for being kind and wonderful mentors and peers. She learned a lot about what it takes to run an academic program and institute, and being around such passionate and bright Environmental and Sustainability students has kept her eagerness to learn alive and well. She will miss everyone (and Pittsburgh) greatly.

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