Tackling local challenges, creating global solutions

Communities across the world are dealing with the effects of environmental evolution and climate change, including increased heat, changes in weather patterns, issues with water access or other challenges.

The College of Liberal Arts and Sciences is leveraging our desert home to not only research and address local concerns but also become a hub for creating solutions that consider perspectives in the humanities, natural sciences and social sciences.

Helping heat-vulnerable communities

The Urban Climate Research Center has received $25 million from the U.S. Department of Energy over five years to lead new research and develop solutions for Arizona's most heat vulnerable.

Creating interdisciplinary dialogues

The Desert Humanities Initiative brings together artists, writers, scientists and more to explore and address critical issues in the desert Southwest.

Understanding the world around us

The Center for Biology and Society is home to both traditional and more collaborative research projects that draw on the interdisciplinary strengths of programs in the history and philosophy of science, environmental sciences and bioethics, policy and law.

Empowering future problem-solvers

The Sala Lab in the Global Drylands Center gives students hands-on research experience performing field surveys in dryland ecosystems.

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Insights

Leveraging
our desert home

Matt Chew, associate faculty in the Center for Biology and Society, brings students from the field course Novel Ecosystems to Papago Park to identify plants and animals.

A hub for urban climate action plans

What can we do about decreasing heat extremes? What changes in precipitation can we expect in the future? What are the tradeoffs associated with certain strategies to mitigate effects of climate change?

The Urban Climate Research Center seeks to answer these questions by delivering transformative scientific advancements and urban climate solutions for diverse urban communities and ecosystems, locally, nationally and globally.

"We want to become the go-to place for every municipality in the U.S. and the world focused on developing science-based climate action plans. We want to engage with municipalities through our science," said Director Matei Georgescu.

"Quantifying tradeoffs and uncovering synergies are important elements leading to the discovery of beneficial solutions. The scientific community is necessary to uncover the breadth of these impacts."

Interdisciplinary reflection on the desert Southwest

Desert Humanities provides environmental experiences with the desert Southwest. Its premise is that we understand, appreciate and care about our environment through physical engagement and cultural framing.

The initiative, housed in the Institute for Humanities Research, has created partnerships among artists, writers, humanists, scientists and community groups to realize projects that invite reflection and new research on the shared place of our life and work.

New initiative Director Jason Bruner hopes to build on the interdisciplinary nature of Desert Humanities and develop a focus on the critical issue of water and food.

"In the coming year, I want the Desert Humanities Initiative to be a place for students, faculty and the broader community to inquire into these complex and interrelated issues, to see them in their historical and cultural contexts and to consider new possibilities for more just and desirable futures."

Ensuring sustainable futures for drylands

Drylands provide a variety of ecosystem services to support nearly one third of the world's human population. They represent different areas such as deserts, grasslands, savannahs, Mediterranean ecosystems and forests.

The Global Drylands Center conducts research and education, considering perspectives from the physical, biological and social sciences as well as the humanities, that provide sustainable solutions for living in drylands and ensure the future of dryland ecosystems.

Within the center, the Sala Lab examines effects of climate change, plant production and global drought research. As part of the lab, students have the opportunity to participate in hands-on research, including assisting with ongoing rainfall manipulation experiments, vegetation and soil sampling and other field surveys on drylands in the Southwest.

How you can engage with our efforts

Whether you are able to attend an event, donate to a cause close to your heart or share your own story, your participation and support can help The College create real-world solutions, facilitate cross-disciplinary conversations and foster the next generation of climate activists.

Support the development of municipal climate action plans by donating to the Urban Climate Research Center fund at **asufoundation.org/ucrc**.

Fund student research trips to Amsterdam, Panama, Mexico and more to give them hands-on experience with the Center for Biology and Society at **asufoundation.org/biologyandsociety**.

Learn about upcoming events hosted by the Institute for Humanities Research, including the Desert Humanities Initiative, at **ihr.asu.edu/events**.

Empower student researchers to create and use open geographic data to address worldwide challenges by donating to the YouthMappers Champions Fund at **asufoundation.org/youthmappers**.

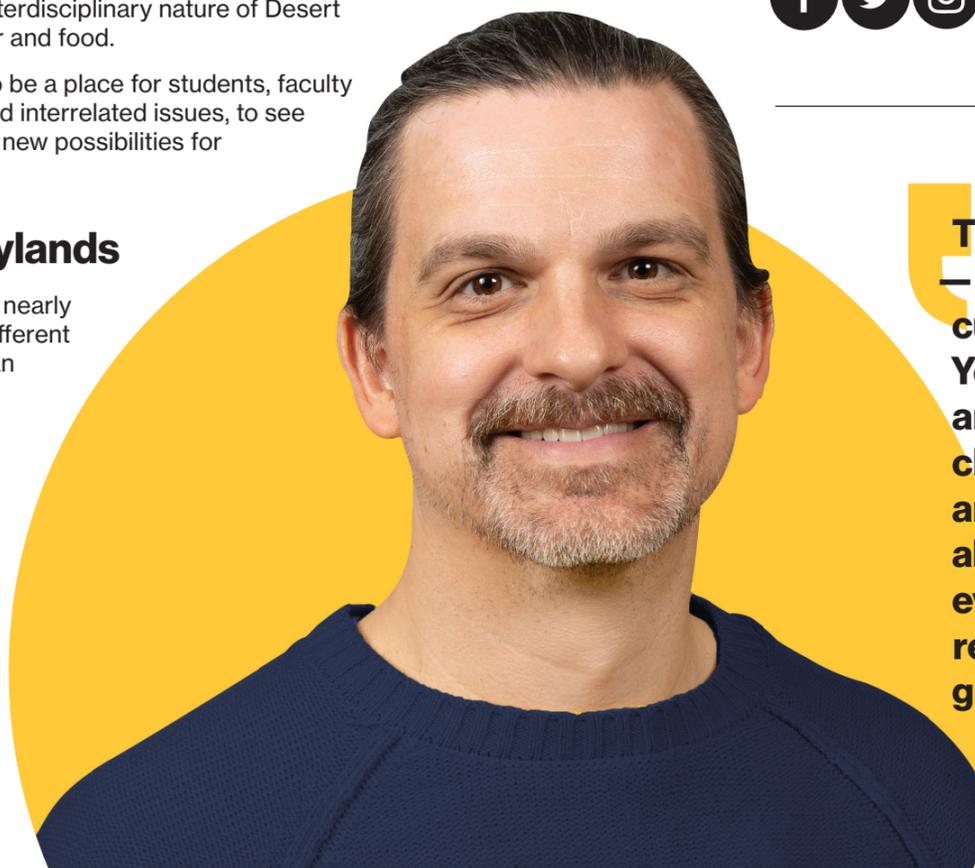Explore more ways The College is leading efforts in environmental evolution and climate change:

Institute for Humanities Research
• **asufoundation.org/ihr**

Global Drylands Center
• **asufoundation.org/globaldrylands**

 @ASUTheCollege

"The Sonoran Desert has been — and is — a place of immense cultural and biological diversity. Yet, we in the desert Southwest are facing many pressing challenges. An enduring drought and diminishing aquifers have already impacted Arizonans, even as Maricopa County remains one of the fastest-growing urban centers in the U.S."

— Jason Bruner,
Director, Desert Humanities