




UNIVERSITY OF
ARKANSAS

SUSTAINABILITY REPORT 2020

OFFICE FOR SUSTAINABILITY
ANNUAL REPORT



The mission of the University of Arkansas Office for Sustainability (OFS) is to motivate, facilitate, and coordinate responsible practices through partnerships with students, faculty, and staff across all campus departments. The OFS uses the campus as a living laboratory by overseeing the implementation of the University of Arkansas environmental goals. These programs are part of the UA Resiliency Center, hosted by the Fay Jones School of Architecture and Design, and are supported by UA Facilities Management.

inspiration
integration
transformation

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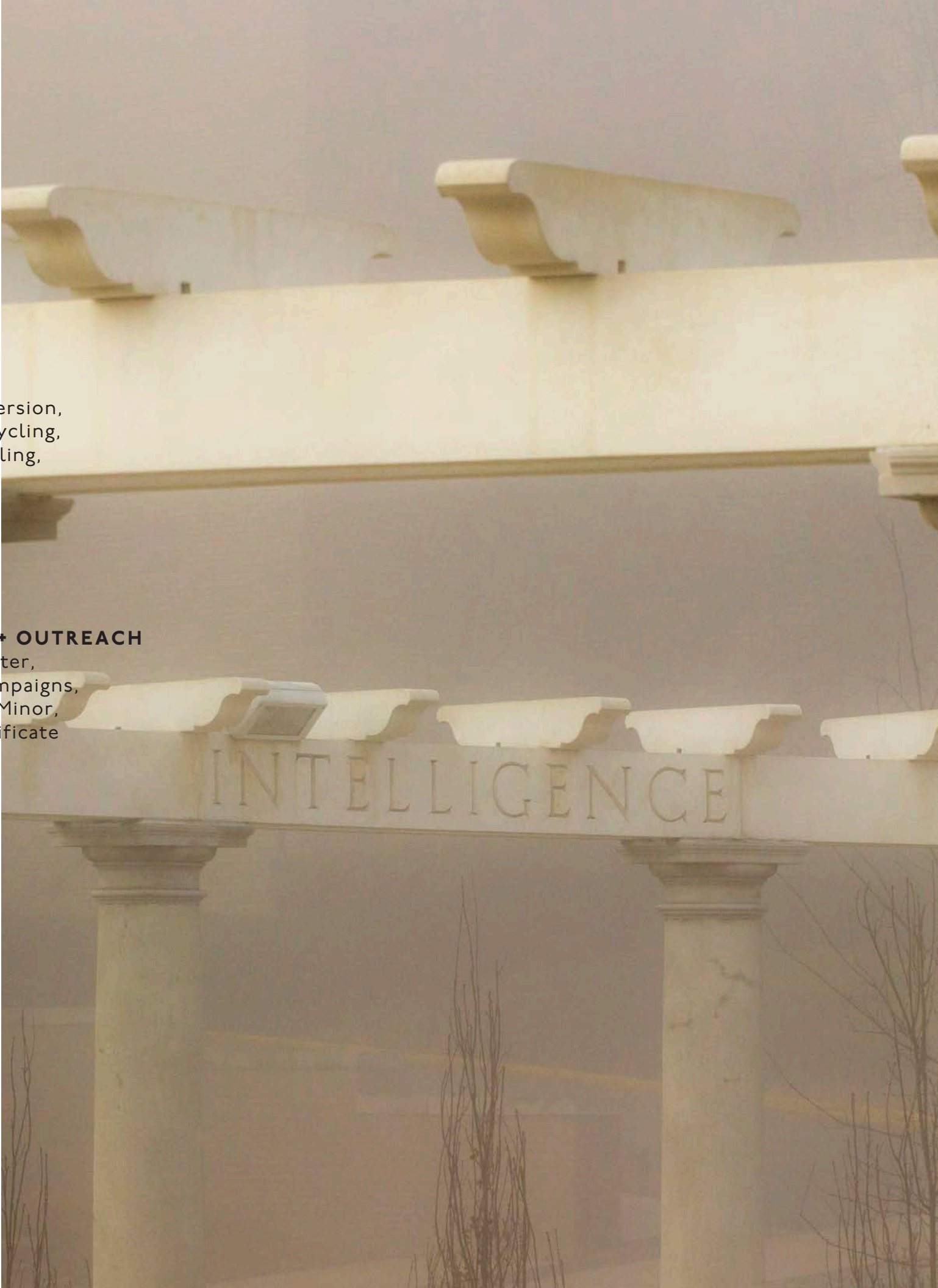
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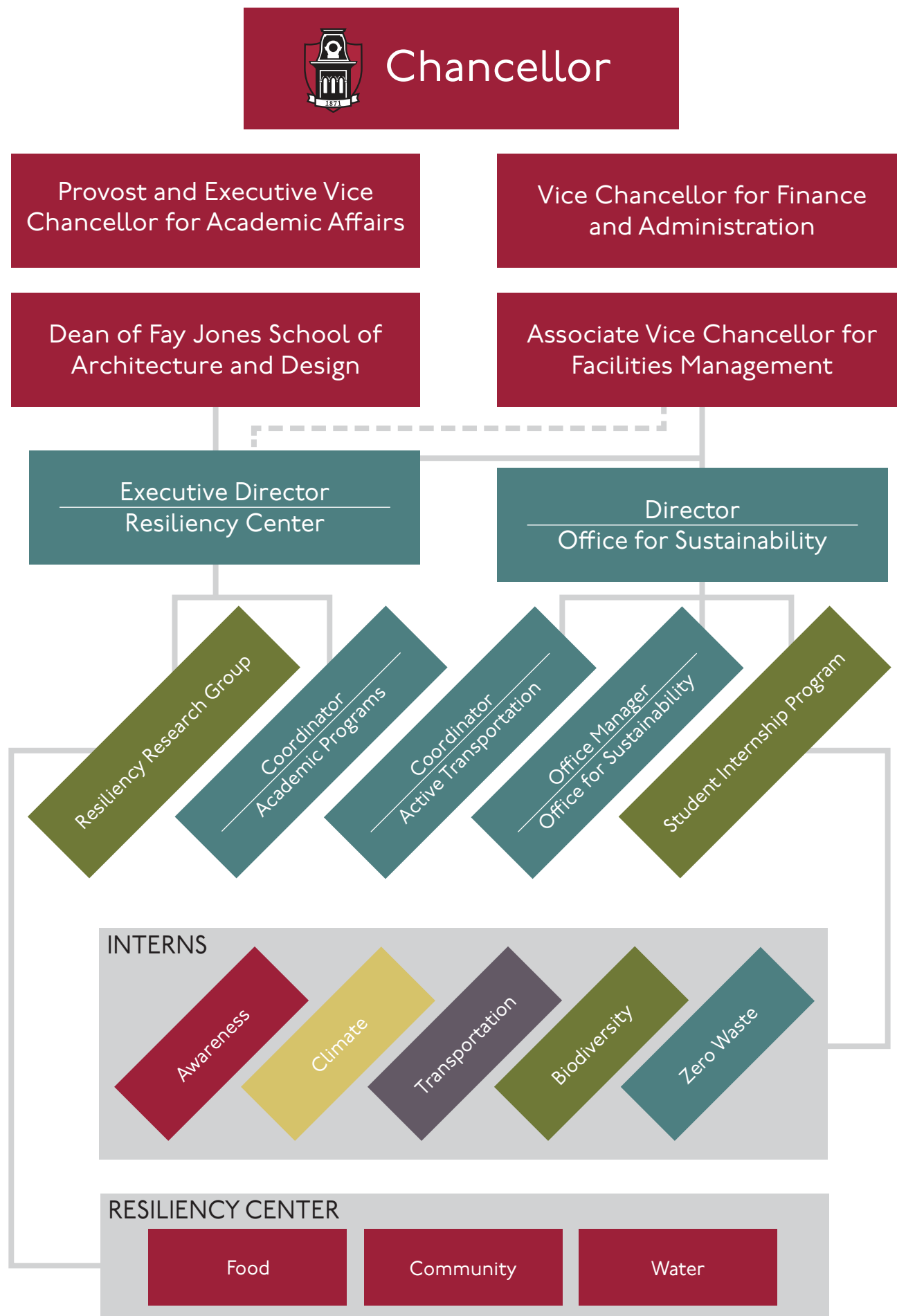
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RECOGNITION





LEADERSHIP



Marty Matlock | Executive Director

Dr. Marty Matlock is Executive Director of the Resiliency Center and a professor in the Biological and Agricultural Engineering Department. Dr. Matlock's research focuses on developing metrics that inform best management practices, ecological services restoration, ecological risk assessment, and life cycle assessment of supply chain systems.



Eric Boles | Director

Eric Boles is Director of the Office for Sustainability and Executive Secretary of the U of A Sustainability Council. Additionally, Eric is a co-founder of Paradigm Sustainability Solutions, which provides companies with science-based sustainability solutions. Eric takes pride in identifying sustainability projects that are economically sound and enhance quality of life.



Ken McCown | Academic Programs Coordinator

Ken McCown serves the Director of the Academic Sustainability programs and as Department Head for landscape architecture in the Fay Jones School where he is also an adjunct professor in architecture. Professor McCown's research focuses upon linking metropolitan resilience and community design, regenerative design, and the Living Building Challenge.



Ammen Jordan | Active Transportation Coordinator

Ammen Jordan is the recently appointed Active Transportation Coordinator for the University of Arkansas. Jordan is focused on providing campus affiliates safe, equitable, and enjoyable opportunities to commute to campus without a car.



Todd Hansen | Office Manager

Todd Hansen wears many hats and serves as the leading graphic designer for the Office for Sustainability. He has a particularly large role in OFS communications, office management, as well as bicycle infrastructure and advocacy around campus.

OFS STUDENT INTERNS

AYLIN PULIDO-
ESPINOSA
Mobility Coordinator

BRIANNA WARREN
Outreach Coordinator

JULIA NALL
Communications
Coordinator

KRISTIINA ALA-KOKKO
Resiliency Research
Team

PRESTON CATES
Data Management
Coordinator

SOPHIE HILL
Zero Waste Coordinator

STEPHEN ROBERTSON
Biodiversity Coordinator

SYDNEY GOLDING
Biodiversity Coordinator

LINDEN CHEEK
Content Coordinator



KRISTIINA ALA-KOKKO
Graduate Assistant

IAN KENNEDY
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ZACH MORGAN
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MARTIN CHRISTIE
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DEANNA MANTOOTH
Graduate Assistant

SUMMER RAE WILKIE
Graduate Assistant

LILLIAN GLAESER
Extra Help Assistant

QUINN MONTANA
Senior Graduate Assistant

ESTHER GOWIN
Communications Intern

OSNAR ANTONIO MONDRAGON GRIOS
Graduate Assistant

UNIVERSITY OF ARKANSAS SUSTAINABILITY COUNCIL

The purpose of the University of Arkansas Sustainability Council is to make recommendations to the chancellor and provost and advise the Office for Sustainability (OFS) in implementing its programs and responsibilities. The Sustainability Council supports the OFS stewardship mission through development and coordination of ideas, information and resources among the university’s student body, academic departments and administrative units to expand the integration of sustainability into operational practices throughout the University of Arkansas and the community. The Sustainability Council is comprised of students, faculty, staff, and key representatives from the Fayetteville, Arkansas community.

MARTY MATLOCK
Co-Chair
Resiliency Center
Executive Director

MIKE JOHNSON
Co-Chair
Associate Vice
Chancellor Facilities
Management

ERIC BOLES
Executive Secretary
Office for
Sustainability Director

CATHERINE SHOULDERS
Dale Bumpers College
of Agriculture, Food
and Life Science

JON JOHNSON
Sam M. Walton College
of Business

ANN GALLAHER
Global Campus

CARL SMITH
Fay Jones School of
Architecture

BRANDON WESTON
College of Education
and Health Professions

VINCE CAPPS
Graduate School

MARLIS DOUGLAS
J. William Fulbright
College of Arts and
Sciences

DARIN NUTTER
College of Engineering

SARA GOSMAN
School of Law

CLAIRE LUCHKINA
Honors College

MOLLY BOYD
University of Arkansas
Libraries

NATHAN KEMPER
Faculty Senate

JULIE SIMPSON
Alumni Association

ANDY GILBRIDE
Transit and Parking

STEPHEN RITTERBUSH
Staff Senate

KELLY BOSTICK
University Relations

ASHLEY MEEK
Chartwells, UA Service
Provider

BECKY MCCOY
Office of Business
Affairs

VICKIE FERGUSON
University of Arkansas
Foundation

PETER NIERENGARTEN
Fayetteville
Environmental Director

KATY NELSON
University Development

ANNA KAY HILBURN
Razorback Foundation

SYDNEY GOLDING
ASG Director of
Sustainability

JEFF VINGER
University Housing

SCOTT SARGENT
Department of
intercollegiate Athletics

CAMPUS PARTNERS



Facilities Management

Fay Jones School of
Architecture + Design



CLIMATE

UA professor Dr. David Stahle pulls a radial sample from the center, or pith, of a tree which will contain a complete series of growth layers. These growth layers show the variation in the tree-ring width, influenced by the annual climate variation during the trees' growth. Dr Stahle's research interests include all aspects of dendrochronology, particularly climate change and the proxy evidence for past variation in the El Nino/Southern Oscillation and other large scale atmospheric circulations.

CLIMATE ACTION PLAN

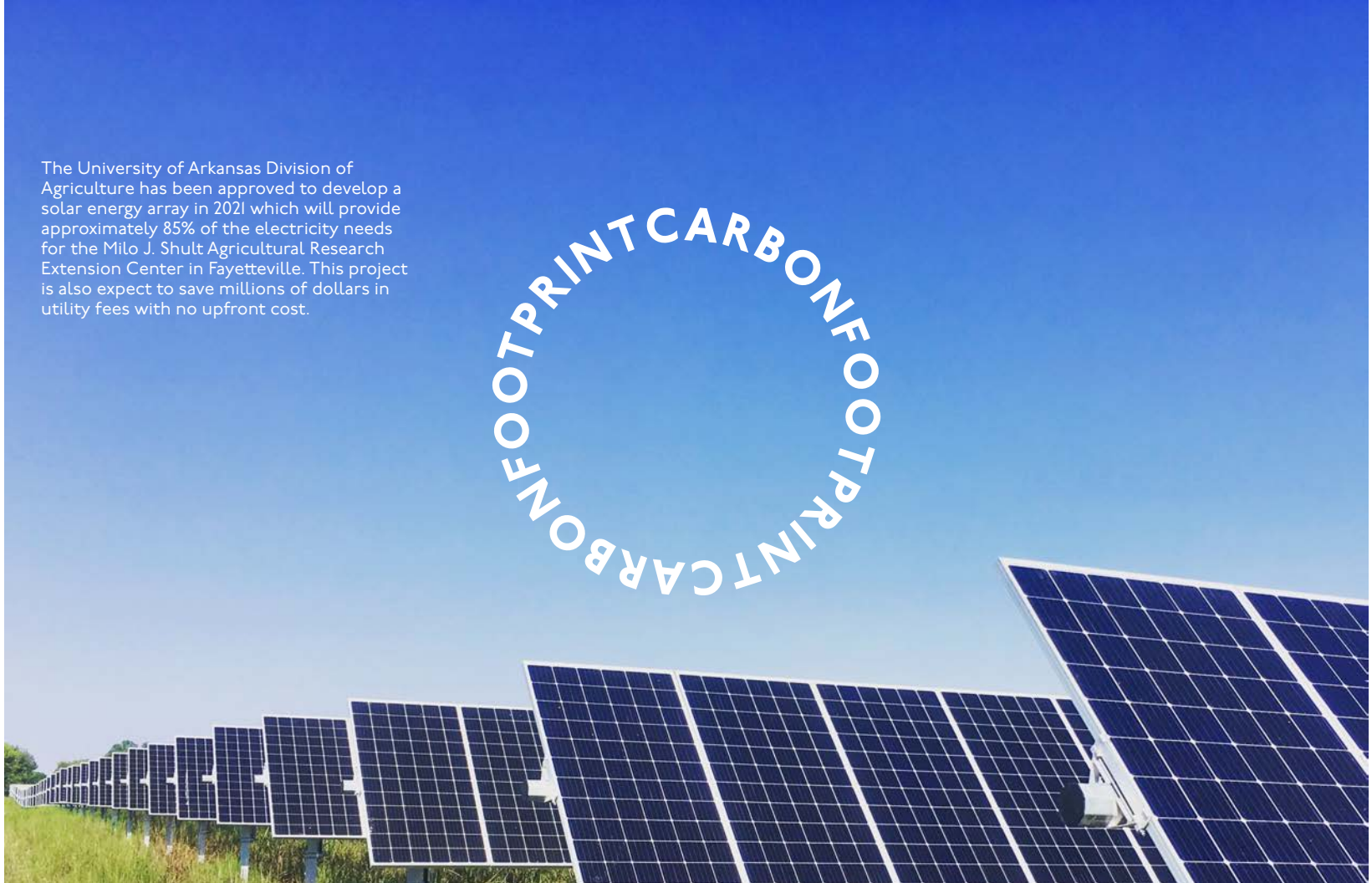
The University of Arkansas Climate Action Plan, ratified in 2009 and updated in 2014 and 2018, is a road map to achieve carbon neutrality by 2040. The University’s 2040 goal is achievable, but only with the continued and vocal support of students, faculty, and staff.

GREEN REVOLVING FUND

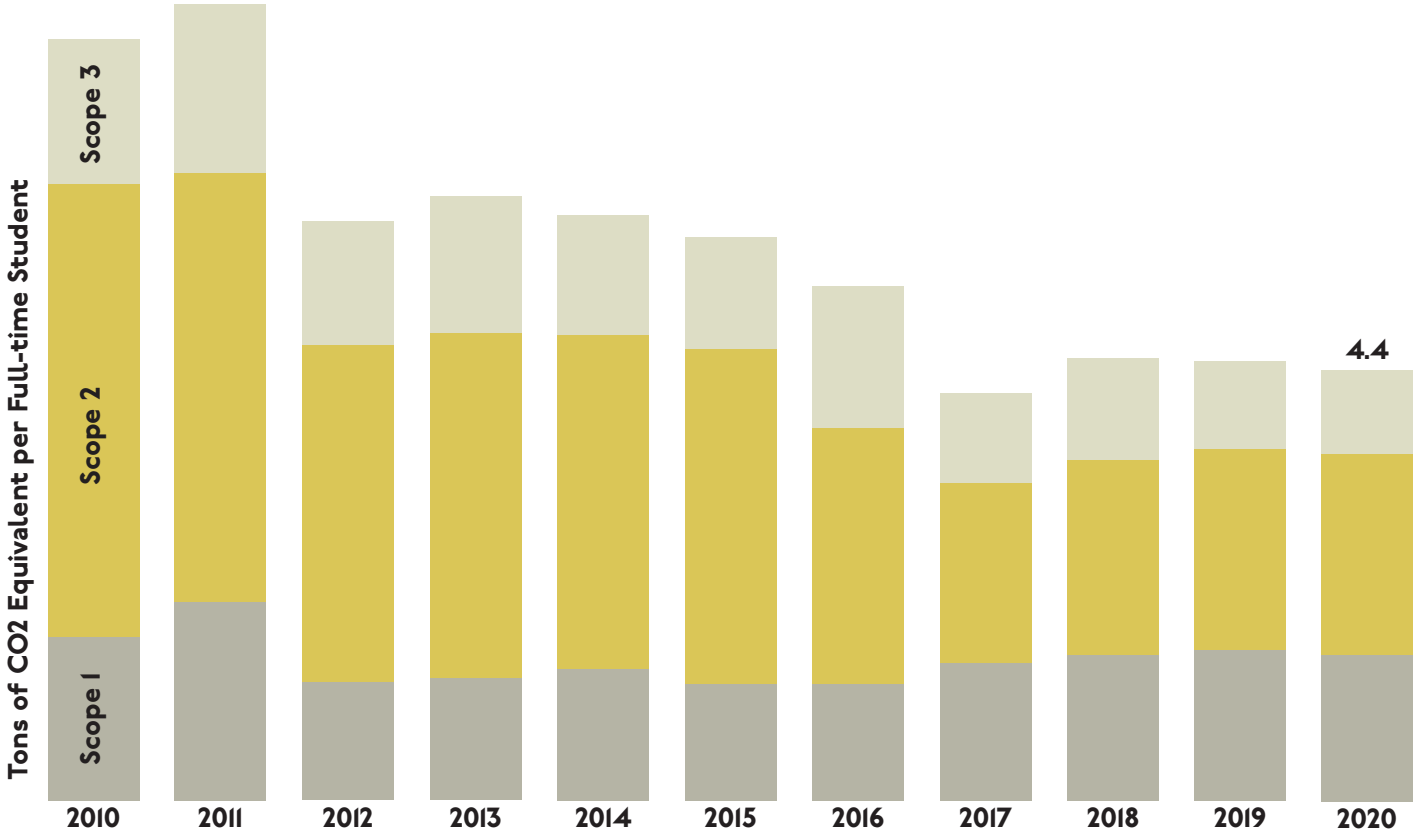
The GRF provides financing for implementing energy efficient, sustainable, cost-savings projects. These savings replenish the fund and help finance additional projects. Past projects include LED retrofits and battery-powered landscape tools.

COMBINED HEAT & POWER SYSTEMS

The campus Combined Heat and Power System (CHP) provides both electrical power and thermal energy (heat) from natural gas. This increases the central plant’s efficiency from 40-73%, saves three million dollars per year in electricity, and reduced the entire University’s emissions by 20%.



The University of Arkansas Division of Agriculture has been approved to develop a solar energy array in 2021 which will provide approximately 85% of the electricity needs for the Milo J. Shult Agricultural Research Extension Center in Fayetteville. This project is also expect to save millions of dollars in utility fees with no upfront cost.



SCOPE 1 EMISSIONS

Scope 1 emissions are directly emitted from the UA campus, such as on-campus stationary, campus vehicle fleet, and fertilizer used on campus.

KEY STRATEGIES

- + Energy efficient buildings
- + Energy conservation strategies
- + Energy Savings Performance Contracts (ESPC) create opportunities for the two key strategies above.

SCOPE 2 EMISSIONS

Scope 2 emissions come from the generation of electricity purchased by the UA. These emissions are a result of campus demand for electricity.

FUTURE OBJECTIVES

- + Scope 2 Emissions reach neutrality in 2021 through solar and wind energy procurement with local utility companies.

SCOPE 3 EMISSIONS

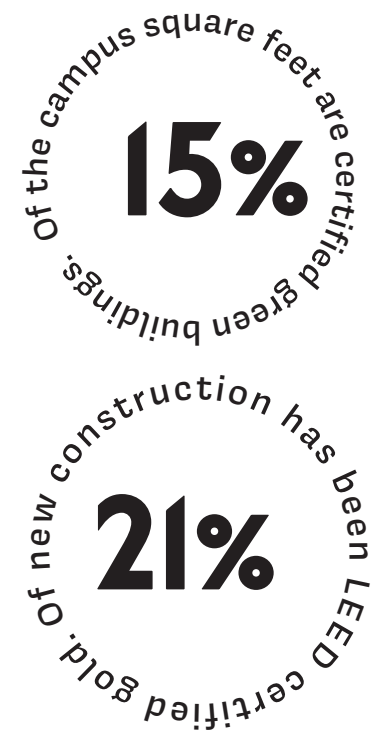
Scope 3 emissions occur off-site but are induced by the UA, such as directly financed airplane travel, waste and waste water, and campus affiliate commuting practices.

KEY STRATEGIES

- + Waste reduction programs
- + More alternative transportation
- + Telecommuting

GREEN BUILDINGS

Campus infrastructure such as buildings have a substantial impact on the experience our students have and the environmental footprint of campus. Buildings use resources, generate waste, and are costly to operate and maintain. Green building is the practice of designing, constructing, and operating the building to maximize occupant health and efficiency while reducing waste and negative environmental impacts. This can often align with decrease life cycle costs through reduced utilities and building longevity. The University of Arkansas is a member of the US Green Building Council (USGBC). Since 2007, the UA has committed to meet or exceed LEED (Leaders in Energy and Environmental Design) Silver standards on all new construction and major renovations.

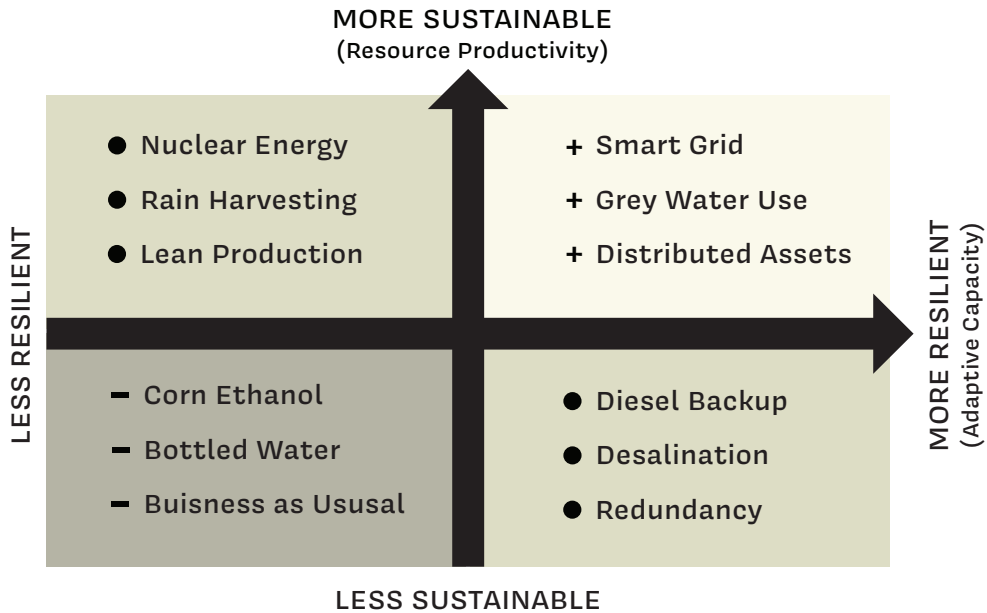



RESILIENCY ASSESSMENT

There are five domains of climate resilience which must be considered to create a truly resilient community: social, health, natural, physical, and economical. These five domains, while made distinct for the sake of analysis, are interconnected and interdependent.

The City of Fayetteville and the University of Arkansas conducted a series of stakeholder meetings with representatives from the city, university, and community. Each meeting focused on one of the five domains of climate resilience. Attendees were provided various climate strategies and were asked to identify our community’s vulnerabilities and strengths. From those meetings, priority topics of climate resilience emerged and all key stakeholders were asked to rank proposed strategies to address climate vulnerabilities in Fayetteville. The highest priority strategies were:

- Improvement of land conservation and protection practices.
- Implementation of storm water management practices.
- Development of a wildfire prevention plan.
- Improvement of energy conservation and generation systems.



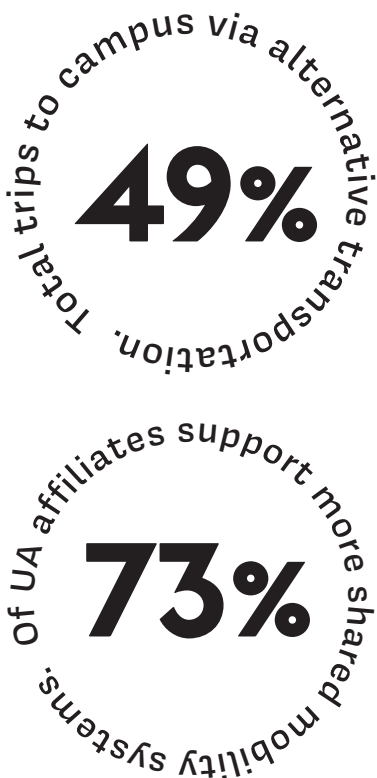


Each semester more students are choosing to leave the confines of the car and embrace active transportation. Many of them will never look at their daily commute as a burden again.

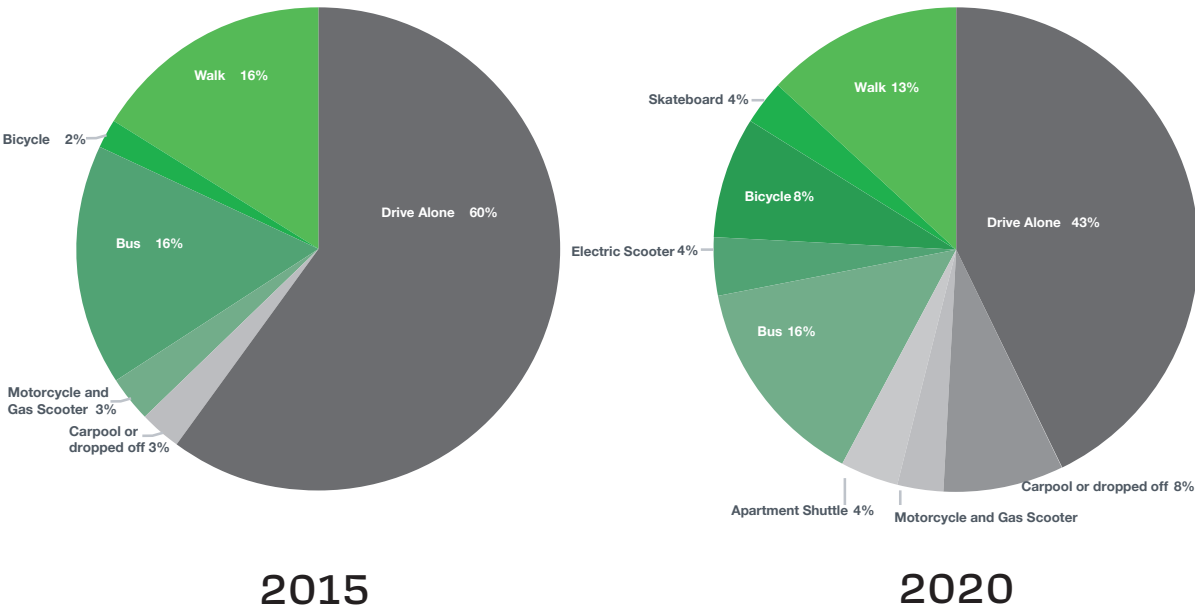
TRANSPORTATION

UA MODE SHARE

The 2020 pandemic has changed our lives dramatically, and for many of us that change comes to our daily routine. We rethink how to get places, if it is necessary to leave the house, and the safest way to get to work and school. For many people their situation requires driving alone, but the mode share trends on the UA campus for 2020 continued to transition towards alternative transportation. According to the 2020 transportation survey, 49% of UA affiliates use alternative transportation to get to and from campus. The UA has helped fuel this trend by working with e-scooter and bike share companies to operate on campus and in the greater Fayetteville area. These shared mobility systems have seen great ridership, especially from students, and 73% of UA affiliates support more shared mobility systems. Other catalysts include more housing near campus, new bicycle trails, and more apartment shuttles.



UA Mode Share Data



COMMUTER MENU

The Office for Sustainability has created personalized door-to-door comparisons of transportation options to get to and from campus. One big decision any new employee needs to figure out is how they're going to be getting to and from work every day. What are the options? What bus route would they take? How much would the parking pass cost? What is the best route to ride a bike?

The Commuter Menu aims to help any UA affiliate compare walking, driving, biking, and transit. That comparison includes their total travel time, daily expense, yearly expense, and calories burned in a simple matrix format. We also map out the fastest and easiest routes to get to campus for the mode deemed “preferred.” Commuter Menus are already available for all major off-campus student housing and apartment complexes and can be found on our website. Starting in 2021, all new UA employees will have access to a personalized Commuter Menu.

COMMUTER MENU

Hill Place Apartments

Home Address: 754 S Royal Oaks Parkway, Fayetteville, AR
Class Location: Old Main
Parking Space: Lot 72
Bus Route: 13

	WALK	BIKE/ E-SCOOTER	BUS + WALK	CAR + WALK
TRAVEL TIME ONE WAY	24 MIN	12 MIN	15 MIN	20 MIN
DAILY EXPENSE	\$0	\$0	\$0	\$3.33
YEARLY EXPENSE	\$0	\$0	\$0	\$615.31
CALORIES BURNED	496 cal	308 cal	40 cal	104 cal
DAILY EMISSIONS	0 lbs/CO ₂ e	0 lbs/CO ₂ e	.92 lbs/CO ₂ e	2.88 lbs/CO ₂ e

KEY TAKEAWAYS

- Riding a bike or e-scooter is the recommended mode for your commute.
- A bike or e-scooter is the fastest, most cost effective and sustainable option.
- Riding a bike produces zero emissions of CO₂, as well as burning 308 calories roundtrip.
- Riding a bike or e-scooter can reduce your carbon footprint, reduce demand for parking, and improve your health and prioritize pedestrian safety.

SUSTAIN.UARK.EDU

ACCESSIBILITY

The University of Arkansas strives to meet and exceed ADA standards to make campus accessible to everyone. Accessibility is especially challenging with our hilly landscape, but programs like Para-transit, ADA parking permits, and thoughtful street design create a more inclusive campus.



BICYCLES

Campus is home to bike infrastructure and programs—from our bike share system, mountain bike trails, and newly installed thermoplastic bicycle wayfinding. The U of A strives to be the most bike-friendly campus in the region and has taken great strides in doing so, earning Bicycle Friendly University Gold status in 2019.



E-SCOOTERS

E-Scooters are the newest micro-mobility addition to our community. These help close the “last mile” gap for many people living adjacent to campus and reduce car dependency. A good transportation ecosystem provides a wide range of options. The Office for Sustainability has deployed several e-scooter parking corrals around campus to help make finding and parking scooters more predictable. Please ride and park respectfully.



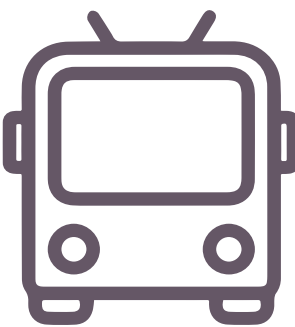
ALTERNATIVE
TRANSPORTATION



UA affiliate enjoys the newspaper as he rides Razorback Transit.

TRANSIT

Razorback Transit serves the University of Arkansas campus and much of Fayetteville. With nearly two million rides per year, the transit system runs across Fayetteville and is free for everyone to use, not just students. Bike racks on the buses allow many students to defy gravity during their commute.



PEDESTRIANS

The U of A campus is the most pedestrian friendly place in the state. Walking is the best way to get exercise, clear your head, and take in the beauty of campus. The U of A even offers discounted remote parking lots that are walkable to campus, and serviced by transit for cold or rainy days.



RIDE SHARE/CARPOOL

Sometimes driving to campus can’t be avoided, but sharing a vehicle with a friend or co-worker will reduce the environmental impact. Carpooling also includes the increasing number of student-focused apartment complexes that provide shuttles for students.



UA Community Stories

Ammen Jordan Active Transportation Coordinator

Ammen Jordan is a Fayetteville native and after graduating from the UA and working out of the state for about a decade, he returned to raise his family here and has quickly become an integral part of the Northwest Arkansas community. He has worked with Bike NWA, sits on the board of the NWA Trailblazers, worked for the NWA Land Trust, and has partnered with UAMS to provide active transportation opportunities to minority communities.



In response to alternative transportation trends, the University of Arkansas has hired a full-time active transportation coordinator, Ammen Jordan. He will assist with the infrastructure and programming needs of people commuting by bicycle, foot, e-scooter, skateboard, wheelchair, and other human-powered transportation. His position will continue to eliminate impediments and increase transportation options for students, faculty, and staff.

The city of Fayetteville and University of Arkansas piloted a bicycle and pedestrian coordinator partnership position for the past couple years. The rapid expansion of micro-mobility such as bicycles and e-scooters made it clear that both the city and university needed dedicated support. The active transportation coordinator is partly funded by the e-scooter permitting system.

Jordan believes that the city and university can continue to collaborate to improve alternative transportation options for Fayetteville. “I am most interested in trying to create seamless bicycle and pedestrian connections between the campus the community,” said Jordan.

It is apparent that the citizens of Northwest Arkansas are turning toward active transportation for physical, mental and financial health; however, the availability, safety and ease still limit the transportation options for many people. Jordan recognizes this and with past experience and passion for the Fayetteville community, he hopes to work closely with departments across campus to get more students, faculty, and staff to look beyond the car and enhance their quality of life. “It is going to be a group effort to reach the U of A’s goal of a more interconnected transportation system for all, but I welcome the challenge,” said Jordan.

“I am most interested in creating seamless bicycle and pedestrian connections between the campus and the community”



Students enrolled in Ecological Emergencies in the U.S., a dynamic art history class that encourages students to make a difference in the community, chose to partner with Ozark Alternatives in Fayetteville to help to restore the ailing ecosystem of the drought-stricken pond.

BIODIVERSITY

CAMPUS CREEK RESTORATIONS

Mullins Creek meanders through the University of Arkansas Campus and flows into Town Branch, the White River, and eventually Beaver Lake, the primary drinking water source for Northwest Arkansas. To restore Mullins Creek and improve water quality, a natural channel was replicated with defined riffles and pools. Rock structures were used to help deflect flow away from the banks. Stepped soil mattresses lined with biodegradable erosion control fabric were built, which naturally allow rising flood waters to disperse evenly. The stream corridor was planted with native grasses, shrubs, wildflowers, and trees to reduce soil erosion, filter pollutants, and provide habitat. This project is widely praised as a success and has inspired the U of A to take a closer look at other urban streams that could be restored, including the Bulldog Branch, a tributary to Mullins, which is planned to be restored in the next year.



BEE CAMPUS CERTIFIED



Bee Campus USA is an initiative of the Xerces Society, a non-profit focused on the conservation of invertebrates. To become Bee Campus certified, campuses must attract, promote, and sustain pollinator populations while educating the university community on the benefits of pollinators. The U of A became a Bee Campus in 2017 and renews the certification annually. The Office for Sustainability is coordinating with key stakeholders across campus to responsibly manage our campus landscapes and ensure that we make space for biodiversity. Current projects include monarch waystations, a community garden, green roofs, bee hotels, habitat restoration, pollinator plots, and prioritizing native plants in new landscape installations. We continue to try to think beyond the lawn and create landscapes that are both scenic and ecologically sound. A campus Biodiversity Committee meets quarterly to review progress and consider new initiatives.

NATURAL TRAILS

There is no doubt if you have been anywhere in Northwest Arkansas recently you probably have heard about the explosion of the cycling scene, and especially mountain bikes. Natural trails that accommodate mountain bikers, trail runners and hikers alike have been constructed in the area at a rapid pace. The University of Arkansas has embraced this trend by building a small natural trail loop on the Oak Ridge Hillside just south of the Walton College of Business last year. The University is continuing it's support of natural trails by helping a collective of community organizations and trail builders to create a one-of-a-kind biking, trail running, hiking or walking experience. It will be a 30+ mile loop that uses natural trails to connect UA trails with existing mountain biking and hiking destinations around Fayetteville, all starting and ending on the UA campus.



The Freshman Experience natural trail on the McIlroy Hillside also has a cedar pedestrian staircase to make traversing the hillside easier.

BIRD STRIKE PREVENTION

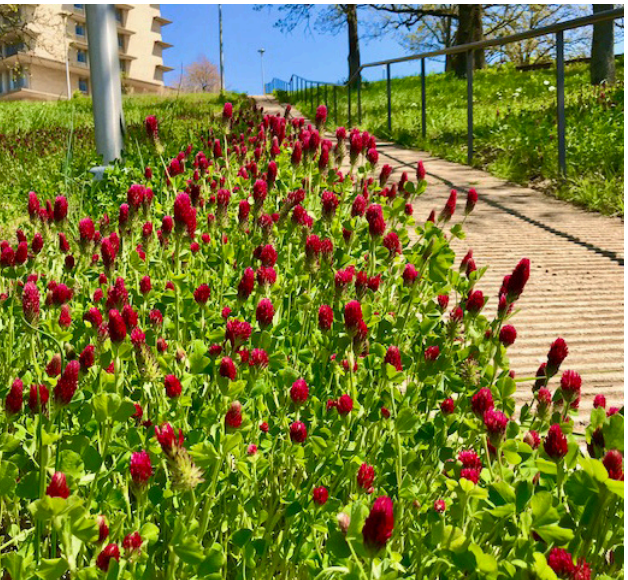
Collisions with windows kills billions of birds each year, the second-most human-linked cause of bird deaths (next to habitat destruction). Following current methods to prevent bird strikes on windows, the University of Arkansas has installed ultraviolet reflecting decals to the south windows of the skyway linking the George and Boyce Billingsley Music Building to the Fine Arts Center.

INVASIVE SPECIES REMOVAL

In 2018, the OFS began an ongoing program removing invasive species along the Oak Ridge trail. Invasive species prevent native plant growth and do not provide good wildlife habitat. Unfortunately they’re often difficult to remove, but the Oak Ridge cleanups utilize help from both volunteers and hungry goats to effectively tackle the problem.

POLLINATOR HABITAT

Adjacent to the Office for Sustainability is a Pollinator Habitat pilot program established in 2018. The pilot plot strives to be a model can be scaled across campus. The ultimate goal of the habitat is to make campus more pollinator-friendly and restore areas to their natural state, but it also happens to be gorgeous when in bloom.



GREEDY GOATS

The Greedy Goats have been used around campus to clear out underbrush and invasive plants. Goats remove invasive green vegetation, which helps volunteers find and remove remaining roots more effectively. The goats eat almost every non-grassy invasive plant, from bush honeysuckle to poison ivy.

GROUND BEE NEST RESERVATIONS

In a small corner of Old Main Lawn, there is a nesting location for the native ground-nesting mining bee *Andrena gardineri*. This nesting spot has been active for over a decade. We have flagged the location for special management procedures in order to conserve this wildlife area. The bee reservation project highlights our continued work with Bee Campus USA.

CLOVER ON MCILLORY

The ongoing Clover Hill project entails seeding an acre of hillside near the McIlroy House along the Oak Ridge bike trail with three species of clover; crimson, red, and white. The goals of this project include beautification, soil restoration, pollinator habitat creation, and erosion control. This will serve as a transition from the invasive species on the hillside.

UA Community Stories

Melissa King Marketing Manager at UA Press

Melissa King, marketing manager at the University of Arkansas Press, located in the McIlroy House building on the southwest corner of campus, spends her personal time promoting monarch butterflies in her home pollinator garden. Last fall, as she walked by a dormant flowerbed space in front of McIlroy House on her way into work every day, she noticed how the bed had become overgrown with invasive vines, particularly vinca and euonymus. These plants, identified as invasive by the city of Fayetteville, had clearly invaded the flowerbed and were even climbing up the walls of the stone building.

Melissa coordinated with Facilities Management and her supervisor before getting to work cleaning out the bed with a few coworkers. There were a few work sessions last fall to dig out the vines by their very large and established roots.

When spring came it was time to plant and mulch the monarch pollinator garden.

The monarch butterfly lays its eggs exclusively on milkweed leaves, so every monarch pollinator garden includes at least one species of milkweed. The Press garden includes two species so far, along with many plants that monarchs and butterflies of all kinds use for nectaring. The press garden has, in addition to milkweed, coreopsis, jo-pye weed, garden phlox, coneflower, lamb's ear, ajuga, parsley, and iris. This variety of plants provides both food and habitat for the butterflies to use on their migration to and from central Mexico.

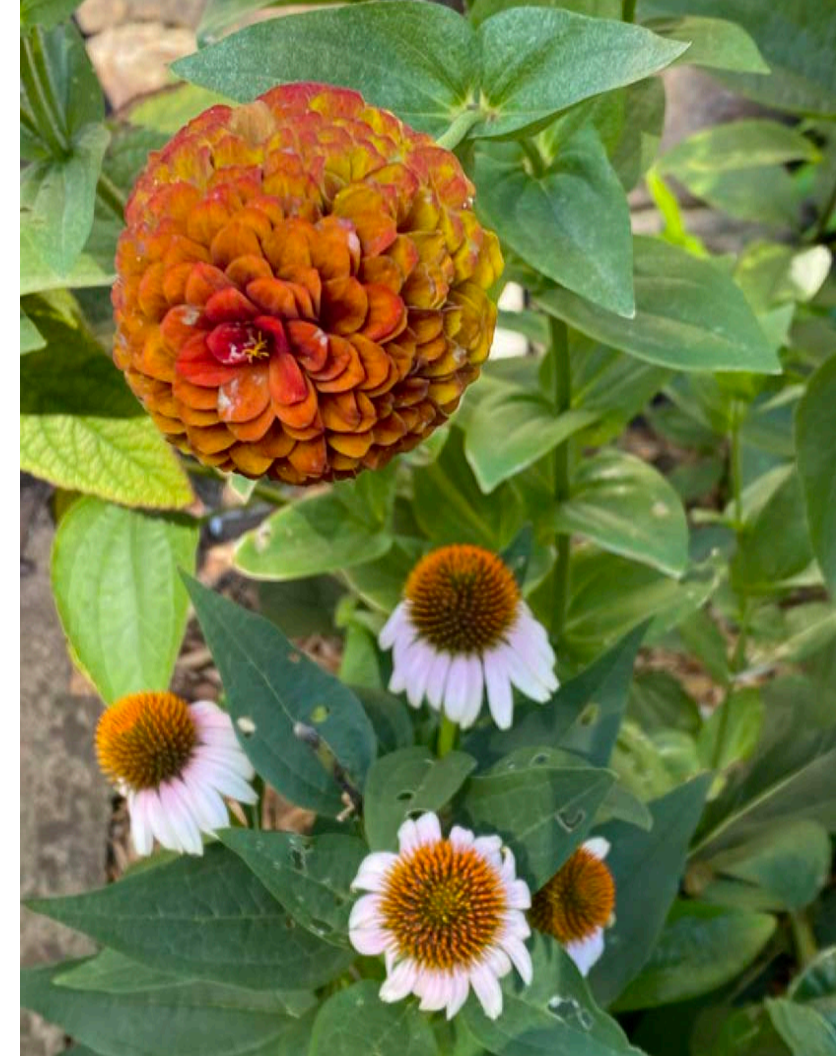
"The idea is to plant a garden that is beautiful, sustaining of monarchs and other pollinators, easy to maintain, and with as many native plants as possible," Melissa said. "We also tried to source our plants from local businesses as much as possible."

As way station number 27843, the Press garden will meet several monarchwatch.org recommendations. In addition to the host and nectar plants, the press garden will consider plant density (caterpillars need shelter and hiding places), will not use insecticides, will mulch for water retention, and will include host plants for other species of butterflies (parsley, for example, is a host plant for swallowtail butterflies).

Melissa has been promoting monarchs for eleven years since her son Jackson learned about the monarch butterfly in elementary school and spotted milkweed plants on a trip to the plant nursery. Since then, she has planted milkweed in her garden every year. Her yard is now a certified way station itself, she has raised monarch butterflies from eggs, tagged adult monarchs from her garden to participate in research on the monarch migration, and begun to volunteer in the educational butterfly programs at the Botanical Gardens of the Ozarks. In November of 2019, she even traveled to the mountains of central Mexico to see the overwintering sites of the monarchs.

"It's usually around late September and early October that we start to see heavy migration in Fayetteville," Melissa said. "One-day last fall the monarchs were like a parade up and down McIlroy Avenue, one after another, all heading in the same direction. It's amazing to me how, walking from my office to get a cup of coffee, I could see a small piece of one of the world's natural wonders, a trip being taken by millions and millions of butterflies to central Mexico every year. From the University of Arkansas campus, we see them coming down to nectar as they head to Mexico, and back again in the spring."

"It's amazing to me how, walking from my office to get a cup of coffee, I could see a small piece of one of the world's natural wonders, a trip being taken by millions and millions of butterflies to central Mexico every year from the University of Arkansas campus."



ZERO WASTE

Welcome pavilion designed and built by Fay Jones School of Architecture students for the Bachman Wilson House (designed by Frank Lloyd Wright) at Crystal Bridges Museum for American Art. Architecture students at the UA are taught sustainable building systems to reduce building material waste and mindful about material selection in the design process.

ZERO WASTE

The University of Arkansas is committed to becoming a zero-waste institution by 2040. One way to reach this goal is to raise awareness and participation for our campus recycling programs. Whether you are a student, parent, staff, faculty, or community member, your recycling efforts are an important part of sustainability at the U of A. For those who live off campus or want to recycle additional materials, find out about the City of Fayetteville's Recycle Something campaign. The Office for Sustainability encourages campus departments and student organizations to aim for zero waste at their events. To support this goal, we have equipment available for free checkout, including: portable cans and bottles recycling receptacles (ClearStreams), and laminated signs.

DIVERSION + AVERSION

Waste diversion is the re-purposing of goods in some shape or form, while waste aversion is the practice of avoiding wasteful goods entirely. For example, one could divert a plastic bottle by recycling it, or avert it completely by refilling a reusable water bottle. Aversion is where environmental responsibility, cost efficiency, and quality of life converge.



Razorback Recycling loading up pallets of white paper and mixed paper to be recycled.

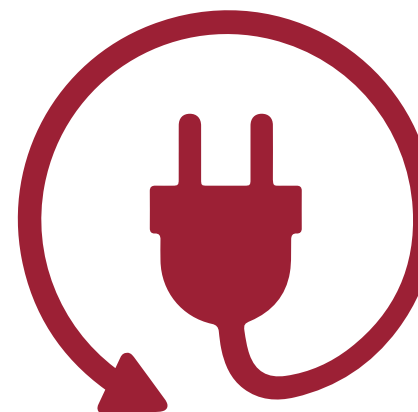
RAZORBACK RECYCLING



A brief history of Razorback Recycling: In November 1990, President Bill Clinton issued an unfunded proclamation that all state agencies would initiate recycling programs. When the U of A custodial services began this program in 1991, Gary Enzor felt inclined to volunteer to help with the opportunity. During the programs first year, 50 tons of paper and aluminum cans were collected. There was a rather steep learning curve as this program was getting started, but they managed to double those collections to 100 tons the following year. As they learned the ins-and-outs of this new process, Enzor was there leading the ship, and he is now the Campus Recycling Coordinator and Solid Waste Manager. Razorback Recycling is responsible for the collection, processing, storage, and marketing of all recyclable materials in educational and general purpose (E & G) facilities. The department also manages the operations of campus solid waste management in providing scheduled solid waste collection and disposal services for E & G facilities and offering purchased services to campus auxiliaries and student living groups.

E-WASTE RECYCLING

The U of A Computer Store handles recycling of batteries, computers, cell phones, and more. Bins that accept these items can be found on the loading dock on the northeast corner of the bookstore. University-owned equipment cannot be dropped off; if you need to dispose of University owned equipment please visit surplus.uark.edu for more information.



Accepted Items:

Computers, Laptops, Printers, Copiers, Scanners, Servers, Cell Phones, Tablets, TVs

Not Accepted:

Any electronics with fluid, CRT monitors/televisions, LCD monitors/televisions, Solder pastes/solder guns, Bio-fluids/medical equipment

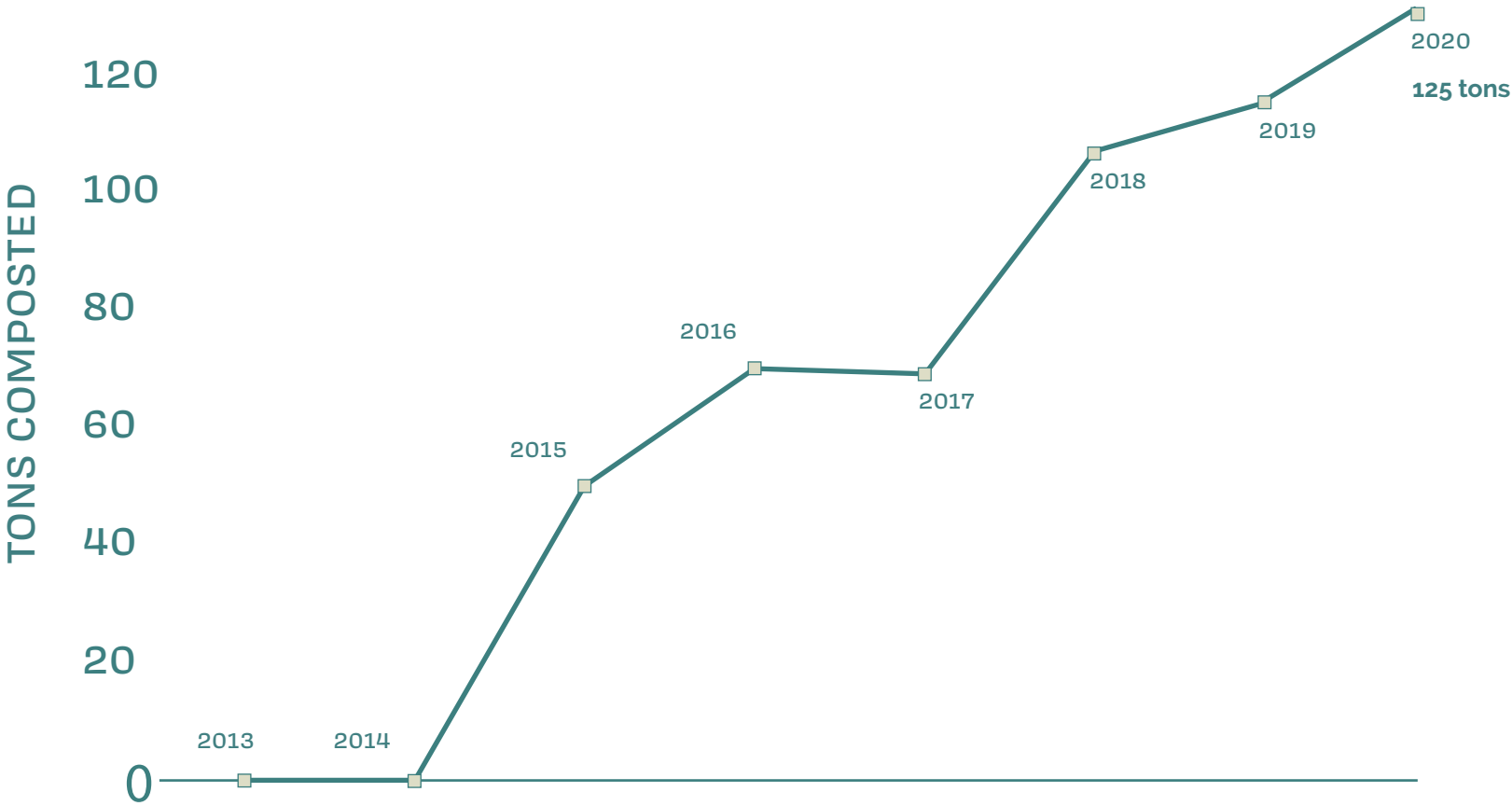


COMPOSTING

In 2017, Chartwells Dining incorporated a behind-the-scenes pre and post-consumer composting program in partnership with the city of Fayetteville. This program is the continuation of a successful composting pilot program in 2016. The program allows the U of A to not only divert food waste from the landfill, but to reduce greenhouse gases released by decomposing waste. Additionally, the City of Fayetteville now hosts a composting program for both businesses and local schools. They also have a yard waste composting program for residents of Fayetteville. This year, Kappa Delta, Pi Beta Phi and Chi Omega sororities have started collecting compost at their houses and are putting it into the city's system.




Razorback recycling employees sort through a load of recyclables from the Union.



RAZORBACK FOOD RECOVERY

Razorback Food Recovery (RFR) is a student-led program through the Volunteer Action Center (VAC) that works to recover surplus food and redistribute it to those in need. Their partnership with Chartwells Dining Services allows volunteers to collect unused food from campus retail and dining locations for donation to community agencies in an effort to address the issues of food waste and hunger. Since its inception in February of 2014, RFR has recovered over 190,000 pounds of food, providing over 108,300 meals to individuals and families in need across the Northwest Arkansas region. RFR hosts "In Good Waste," a flagship summit which allows the opportunity for the RFR team to coordinate with food service professionals in the Northwest Arkansas region, helping them expand and increase their mission.



A high-magnification micrograph of a nanochip. The image shows a complex pattern of orange and blue structures on a dark background. The orange structures include a large, dense cluster of small, cross-like shapes in the upper left, a series of parallel lines in the upper right, and a large, irregular shape in the lower right. The blue structures are more sparse and appear as small, cross-like shapes scattered throughout the image. The overall image has a grainy, high-contrast appearance typical of nanoscale imaging.

The Institute for Nanoscience and Engineering comprises interdisciplinary departments across campus working in nanoscale research. Capabilities include materials growth and characterization, protein transportation, nano-bio photonics, theoretical modeling, tribology, and materials manufacturing. This is a photo of a nanochip their researchers developed.

**ACADEMICS +
OUTREACH**

RESILIENCY CENTER

The Mission of the University of Arkansas Resiliency Center is to explore the characteristics of food, water, and community systems that make them resilient (or fragile) and to develop strategies for increasing the resiliency of these critical life-support systems. Communities in Arkansas and around the world are struggling to respond to changes that are happening in the environment, economy, and society – changes that are happening faster than we have ever experienced. In order to continue supporting prosperous communities in both urban and rural areas, decision-makers need better tools and frameworks for understanding and managing the risks and opportunities these changes bring. One important way to manage these risks and opportunities is to foster resiliency in our communities - the ability to continue functioning under changing conditions and to resume functioning after a catastrophic disruption.



A COLLABORATIVE APPROACH

The University of Arkansas Resiliency Center (UARC) is an interdisciplinary research and outreach center hosted by the Fay Jones School of Architecture and Design, in collaboration with the College of Engineering and the Walton College of Business. UARC works closely with communities of scholars across Arkansas and around the world, some partners include:

Fay Jones School of
Architecture + Design

College of Engineering

Walton College of
Business

Office for Sustainability

Community Design
Center

Center for Advanced
Spatial Technology

RESILIENT SYSTEMS

Resilient systems have common characteristics, including interconnectivity, redundancy and intense communications between system elements. These are also characteristics of healthy community, food and water systems. These global challenges are also very local: Arkansas communities are facing aging infrastructure and populations; childhood hunger and obesity; workforce preparation for automated technologies; and water resource management with increased demand and diminishing supplies. The goal of the U of A Resiliency Center's research is to expand our knowledge and understanding of food, water and community systems. These interconnected components are critical for designing a more prosperous and resilient future. The center's research activities are supported by more than \$2.5 million in committed funds from extramural grants and contracts.

FOOD SYSTEMS

Food systems include the entire value chain, from producer to consumer, including post-consumer recycling of nutrients and carbon. Food systems research focuses on metrics, measurements and technologies to improve the sustainability and resiliency food systems.

COMMUNITY SYSTEMS

Community systems include the structures, processes, and functions necessary for communities to be resilient in the face of economic, climate, and cultural changes. The resiliency of communities depend on food and water systems, as well as social, cultural, and economic infrastructure. These characteristics are supported (or degraded by) design and management decisions within the community.

WATER SYSTEMS


Water systems are the functions and processes that impact water resources within a community. These impacts include both quantity and quality of water. Climate change is impacting the frequency of floods and droughts. This in turn is impacting the availability of water to support residential, industrial, agricultural, and ecological demands.




entry and vehicle parking share space with the orchard, while the Utility Shed serves as a backdrop and portal to the Barnyard and Training Loft

MONTHLY CAMPAIGNS


The Office for Sustainability hosts a variety of events to educate and connect with our campus and surrounding community. Our events focus on education, professional development, and networking to encourage an informed and connected Fayetteville. Vertically integrated sustainability requires a deep community engagement, and the Office for Sustainability is dedicated to bringing our campus and city together while we work towards a more sustainable future. Every month, there is a theme dedicated to one element of sustainability so that we can further educate our community. These themes are expressed through our social media, planned events, and newsletter services. The OFS newsletters reach approximately 1,800 UA affiliates.




JANUARY
Volunteering




FEBRUARY
Energy




MARCH
Ecology




APRIL
Transportation




MAY
Waste




JUNE
Procurement




JULY
Water




AUGUST
Technology




SEPTEMBER
Infrastructure



OCTOBER
Policy



NOVEMBER
Food



DECEMBER
Giving



"I feel the value of the sustainability minor to students is tremendous. While a student's major lays some groundwork for what they may do in the world, the minor helps the student think about how they will do those things. Thus the significance of the minor builds over time as students create real value—social, environmental, or economic—in society."

-DR. DAVID HYATT, WALTON COLLEGE OF BUSINESS

SUSTAINABILITY MINOR

The Foundations of Sustainability minor is an 18-credit program open to all undergraduate students at the University of Arkansas. The sustainability minor provides foundational knowledge and skills related to the emerging discipline of sustainability and prepares students to become innovators within diverse fields. The program is organized around built, natural, managed, and social systems of sustainability.

GRADUATE CERTIFICATE

The Graduate Certificate in Sustainability is a 15-credit, interdisciplinary program, drawing from faculty and course work across all colleges of the University of Arkansas. The graduate certificate is accessible to all students admitted to the Graduate School, both degree-seeking and non-degree seeking, to participate in an advanced study in sustainability. The purpose of the Graduate Certificate in Sustainability is to provide functional graduate-level knowledge and skills related to the emerging discipline of sustainability organized around the four interdisciplinary systems areas.

Students who complete the Graduate Certificate in Sustainability will be prepared to:

- Articulate commonly accepted definitions of sustainability and discuss various nuances among those definitions as well as engage in analytical thinking to enhance sustainability measures.
- Address real-world problems of sustainability to reinforce and enhance their professional careers.
- Have an understanding of the interdisciplinary nature of sustainability issues, particularly as they pertain to the thematic areas of knowledge addressed by the graduate certificate.
- Make recommendations, based on data analysis and interpretation, to advance sustainability of individuals or institutions.



Office for Sustainability

The land our campus sits on goes back beyond written history and includes the legacies of several Indigenous groups. Before Europeans arrived in what is now called Arkansas, the Osage had been using this area for food and hunting, and multiple other groups frequented the Ozarks for resources. The Cherokee have a history here as well, as many Cherokee used the land before the Trail of Tears forced the Cherokee to move through the Ozarks and into Oklahoma. As Indigenous people protect 80% of the world's biodiversity while comprising 5% of the global population, sustainability efforts must always consider the stewardship and legacy of Native groups. The Office for Sustainability recognizes the history and contribution of the Osage, Cherokee, Caddo, and other tribes who have protected the space surrounding the University of Arkansas.