

UNIVERSITY OF
GEORGIA
2017
CAMPUS
SUSTAINABILITY
REPORT



GEORGIA
Office of Sustainability

FOREWORD

As a land-grant and sea-grant institution, the University of Georgia is committed to the effective stewardship of our natural resources and to the advancement of campus sustainability. We lead by example, leveraging research, education, service, and campus operations to address both immediate issues and grand challenges. This commitment is expressed in the University of Georgia's 2020 Strategic Plan and in the deliberate actions of dedicated UGA faculty, staff, and students, some of which are included in this report.

As a complement to the pages that follow, I would like to highlight two upcoming projects that demonstrate our ongoing commitment to creating a sustainable and resilient campus. Construction activities are currently underway to help restore the Lake Herrick watershed and to expand opportunities for recreation, research, and experiential learning on campus. By the fall of 2018, visitors to Lake Herrick will enjoy additional walking trails, restored native shoreline vegetation, and a dock for launching canoes, kayaks, and paddleboards. Also in the coming year, a third of UGA's campus transit fleet, the largest campus transit system in the U.S., will be converted to electric buses with zero tailpipe emissions. This project will reduce long-term operating costs and provide one more responsible transportation option for our students.

Thank you to all of our campus and community partners who are helping the University of Georgia to create a thriving culture of sustainability.

Jere W. Morehead
President, University of Georgia



Creating inspired leaders,
stronger communities &
thriving natural systems.

**THAT'S OUR
COMMITMENT.**



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EXPERIENTIAL LEARNING

MORE THAN

140

STUDENTS ENROLLED
IN THE INTERDISCIPLINARY
CERTIFICATE IN SUSTAINABILITY



INTERDISCIPLINARY CERTIFICATE IN SUSTAINABILITY

Every Tuesday and Thursday morning at 8 a.m., approximately 20 students start their day in New College on north campus with a cup of coffee or tea, occasionally an inspirational poem, and a seminar on sustainability hosted by Ron Balthazor.

“Sustainability is all about the big picture. The ultimate goal is that you come away feeling equipped to look at big and little problems through the lens of sustainability.”

— Bailey Shea, Economics major and Certificate recipient

The sustainability seminar is a two-semester requirement for students pursuing the sustainability certificate, a program that enhances opportunities for integrative, applied learning in interdisciplinary settings and prepares students to address global sustainability challenges. Students from multiple disciplines benefit from an understanding of the framework of sustainability and an opportunity to apply skills and learning to real-world solutions. To satisfy requirements of the certificate, students design and implement an applied capstone project to enhance sustainability and resilience within their communities.



EXPERIENTIAL LEARNING

311 INTERNS COMPLETED MORE THAN
46,000 HOURS OF SERVICE

THROUGH THE OFFICE OF SUSTAINABILITY STUDENT INTERNSHIP PROGRAM

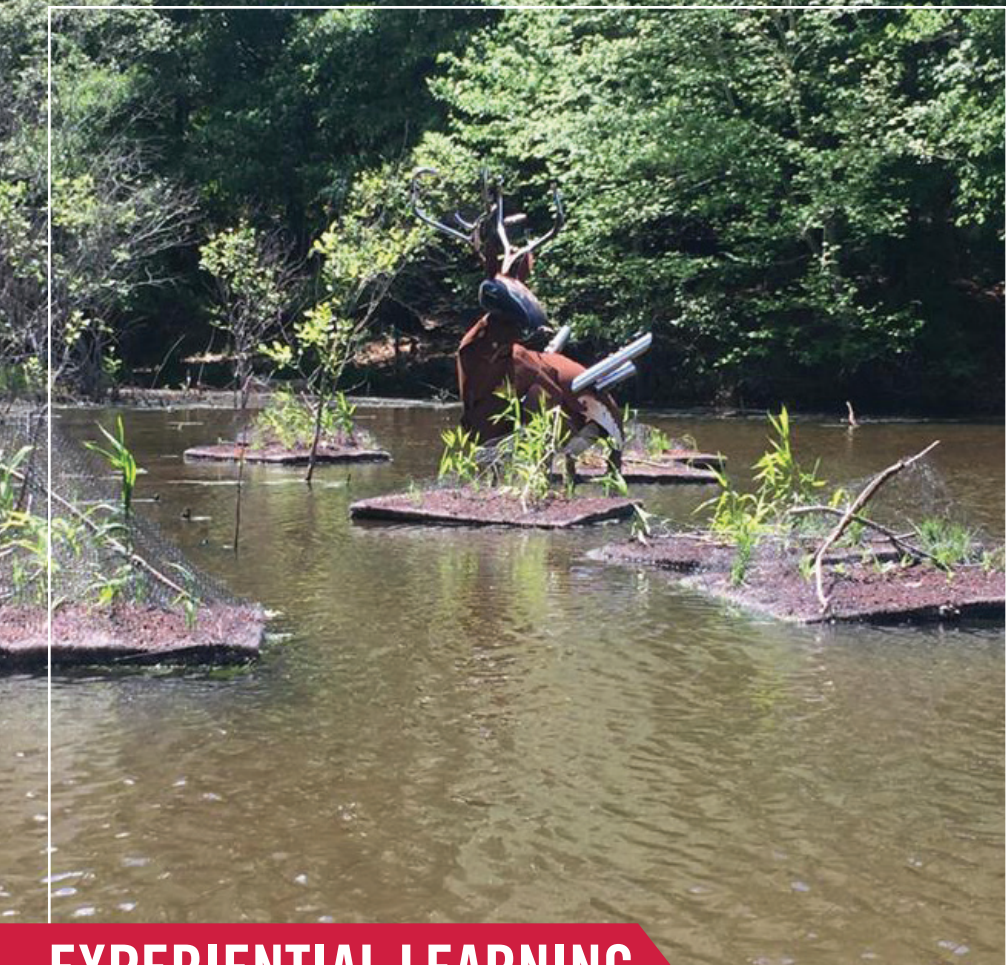
For most University of Georgia students, an internship is an essential to part of the college experience. Jocelyn Carver, a third-year environmental engineering student at the University of Georgia, remembers exactly why she chose to apply for an internship with the Office of Sustainability.

“When I saw all the cool things that the sustainability interns were doing, I knew that I wanted to get involved.”

— Jocelyn Carver, Chew Crew Intern

The Office of Sustainability Student Internship Program, a collaboration with UGA’s Fanning Institute for Leadership Development, provides opportunities for experiential learning, leadership, and professional development while making a positive and tangible impact within the University of Georgia and Athens communities.

Since 2010 the program has grown from one intern to as many as 26 positions each semester. To date, more than 300 internship opportunities have been provided, allowing students to make a tangible difference in their community.



EXPERIENTIAL LEARNING

**\$250,000 AWARDED TO DATE TO FUND
68 STUDENT PROJECTS**

THROUGH THE CAMPUS SUSTAINABILITY GRANTS PROGRAM

UGA students are learning by doing. In 2017, the University of Georgia awarded \$40,000 to fund 10 interdisciplinary student projects through the Office of Sustainability's annual Campus Sustainability Grants program. Funded by student green fees, the program provides financial and staff resources to help students implement projects that further the University's sustainability mission.

“Campus Sustainability Grants present opportunities for innovation. Students are given resources to take their ideas from concept to completion.”

— Kevin Kirsche, UGA Office of Sustainability

Sarah Hensey, a student in Warnell School of Forestry and Natural Resources, under the direction of Dr. Susan Wilde, constructed an aquatic system of floating plant material designed to improve water quality in Lake Herrick. Floating wetlands are a natural way to filter excess nutrients.



RESILIENCE

“Improving the environmental and economic health of coastal Georgia through research, education and outreach.”

**THAT'S OUR
COMMITMENT**

Field research on the Georgia coast can be challenging. Just ask Courtney Balling, a graduate student studying crop and soil sciences at UGA who is excited to use innovative drone technology for her research on living shorelines.

“With the drone, you can cover large expanses at a lower cost than with conventional mapping technology...I’m really interested in low cost methods that open science to different communities and people that might not have access.”

— Courtney Balling, Crop & Soil Sciences student at UGA

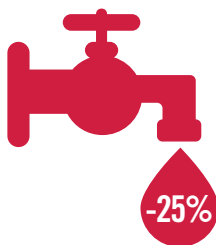
As part of her Public Service and Outreach Graduate Assistantship with Marine Extension and Georgia Sea Grant, Balling is comparing bulkheads to living shorelines and studying the effect of these stabilization methods on adjacent properties.

Balling also plans to share her findings with the Georgia Department of Natural Resources Coastal Resource Division to help inform permitting and policy assessments of living shorelines in Georgia.



WATER

UGA IS A LEADER IN WATER RESOURCE MANAGEMENT.



WATER USE PER FT² SINCE 2007



RAINGARDENS FILTER
STORMWATER RUNOFF

WATERSHED UGA
AWARDED

A
Stormwater Steward

Students are helping local students. Stroud Elementary School was awarded the 5 Star EPA Grant with help from Watershed UGA for use in the Stroud Elementary School Creekside Trail Restoration and Education Project.

The project intends to restore a 3/4 mile creek-side trail, 4,500 ft of riparian habitat, and 48 acres of forest to improve water quality and aquatic/terrestrial habitat at Trail Creek.

“Students at Stroud Elementary are studying biodiversity by learning about the urban forest and trail on their school’s campus. They will plan and carry out their own project in the spring, such as installing bird baths or planting a pollinator garden!”

— Liz French, Odum School of Ecology Graduate Student

Multiple UGA departments and classes are collaborating on the creation of three outdoor classrooms to provide educational opportunities to Stroud Elementary students and the nearby community.

These classrooms will host associated curricula in water quality monitoring and protection, plant and animal life and its interaction with the watershed, the function of wetlands, and educational and career opportunities in the field of environmental protection.



ENERGY

21% REDUCTION

**IN ENERGY USE PER SQUARE FOOT SINCE 2007
IN UNIVERSITY FACILITIES IN GEORGIA.**

WenZhan Song wants to make smart technology even smarter.

His work to develop “smart grid” energy systems has the potential to increase the use of renewable energy sources and is an example of how the work of the university’s faculty will create a more secure future for Georgians.

**“SMART TECHNOLOGY CAN REDUCE THE
WORLD’S OVERALL ENERGY CONSUMPTION...
THE BENEFITS ARE SIGNIFICANT.”**

— Dr. WenZhan Song, UGA College of Engineering

Song’s research focuses on advances in cyber-physical systems and security in energy, environmental and health applications. Cyber-physical systems, also known as the Internet of Things or IoT, are “smart” systems that link the physical world with the virtual or cyber world of information processing through sensor technology. Song also develops innovative, real-time subsurface imaging systems that help make the oil and gas exploration and production process more efficient.

UGA’s focus on informatics—and its reputation for interdisciplinary research—played a major role in attracting Song to Athens.



WASTE

UGA MANAGED A TOTAL OF 8,238 TONS OF WASTE MATERIAL IN 2017.

**2,537 TONS
RECYCLED**

**864 TONS
COMPOSTED**

A plastic grocery bag cartwheels down the beach until a gust of wind spins it into the ocean. This scenario plays out over and over again in coastal counties around the globe as discarded plastics make their way to settle in the world's seas.

How much plastic waste is making its way from land to ocean has been a decades-long guessing game. UGA's Jenna Jambeck and her colleagues have put a number on the global problem.

In 2010, a total of 275 million metric tons of plastic waste was generated in 192 coastal countries. Jambeck explains the amount of plastic moving from land to ocean each year using 8 million metric tons as the midpoint.

"Eight million metric tons is the equivalent to finding five grocery bags full of plastic on every foot of coastline in the 192 countries we examined."

— Dr. Jenna Jambeck, UGA New Materials Institute.

"We're being overwhelmed by our waste," she said. "But our framework allows us to also examine mitigation strategies like improving global solid waste management and reducing plastic in the waste stream."

Researchers in the New Materials Institute are developing solutions to reduce waste and create a circular economy.

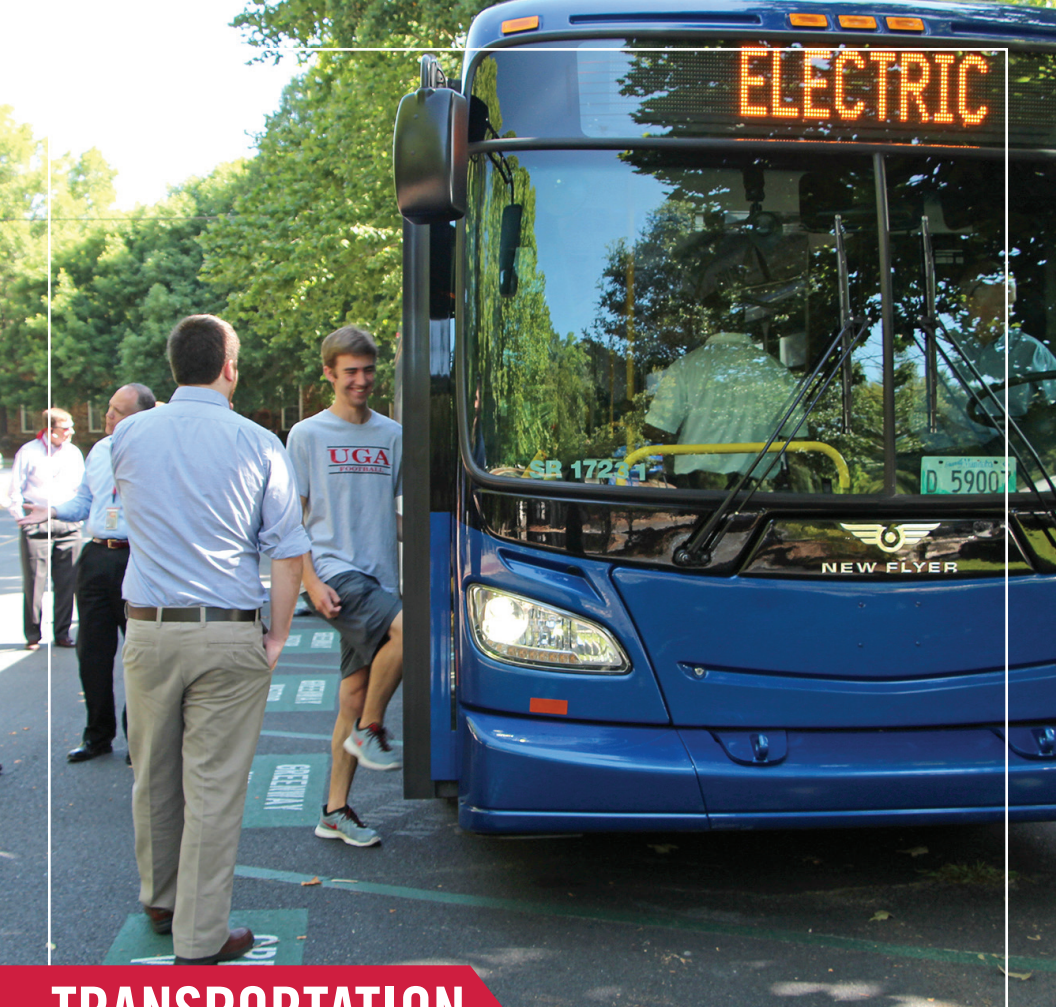
“Protecting natural resources and
promoting peace and prosperity.”

THAT'S OUR
COMMITMENT



UNIVERSITY OF
GEORGIA





TRANSPORTATION

UGA IS A BRONZE-LEVEL
BICYCLE FRIENDLY
UNIVERSITY



STUDENTS, FACULTY, & STAFF
REGISTERED TO RIDE
BULLDOG BIKES

1,100

12
MILLION

RIDERS UTILIZE
CAMPUS TRANSIT
EACH YEAR

For students waiting at the University of Georgia bus stops, the engine whir of the white buses is a clue to look up from their phones and board the bus.

But on Thursday, Sept. 21, and Friday, Sept. 22, students waiting for the Milledge Avenue and Orbit buses didn't have this hint.

**“It’s amazing...It’s so quiet and fast.
The ride is incredibly smooth.”**

— Don Walter, UGA Transportation & Parking Services

UGA Transportation and Parking Services tested electric buses as they plan to convert about one-third of UGA's transit fleet to all-electric vehicles, partially financed through a grant from the State of Georgia GO! Transit Capital Program.

Battery technology has improved such that an all-electric bus has enough range to operate for a full day of service on UGA's hilly campus.

UGA is currently engaged in a competitive process to select a manufacturer and make the switch to electric transit.



FOOD

20%

OF ALL FOOD ITEMS SERVED
**COME FROM GEORGIA
OR BORDERING STATES.**



100%

OF FOOD WASTE
COMPOSTED
FROM UGA DINING HALLS

University of Georgia students are concentrating on their education instead of finding meals thanks to the Let All the Big Dawgs Eat Food Scholarship.

The food scholarship sponsors UGA Dining Services meal plans for students with demonstrated need. Louis York, a spring 2016 graduate from Fort Mitchell, Alabama, said the scholarship made a huge difference in his life. His diet improved, providing greater energy for his involvement and studies. He was able to scale back his work hours and concentrate more on being a student.

“Our gift is aimed at a goal of addressing food insecurity and eliminating hunger at UGA. We are excited and humbled to assist in the University’s efforts to end student hunger on campus.”

— Halsey Wise and Lisha S. Wise Family Foundation

College student food insecurity is increasingly becoming a focus of study and discussion on major college campuses across the country. Food insecurity – lacking reliable access to a sufficient quantity of affordable, nutritious food – can impede students in several ways, from financial strain, to time commitment, to nutrition quality and wellness.



CLIMATE

25% REDUCTION

IN UGA'S NET GREENHOUSE GAS EMISSIONS SINCE 2010.

At the peak of the Atlantic hurricane season, researchers at the University of Georgia in partnership with NASA Goddard Space Flight Center were awarded a grant to study how wet soils may strengthen tropical storms over land.

The research, funded by NASA's Climate Variability and Change Research Area, will augment Earth system models by using satellite-based soil moisture estimates to better predict when storms will strengthen over land.

“Our previous work found that smaller or weakening storms can be the biggest rain producers, not the powerhouse Cat 5 storms.”

— Dr. J. Marshall Shepherd,

UGA Atmospheric Sciences Program

Marshall Shepherd, Georgia Athletic Association Distinguished Professor of Geography and Atmospheric Sciences and principal investigator, says the team will explore how wet soil, swampy regions like the Everglades and even irrigated areas affect storms as they move inland.

“The more common behavior is that hurricanes weaken when they move over land so this research has implications for assessing storm hazards and flood potential as storms move over land,” said Shepherd.



COMMUNITY

“Connecting academic foundations to the world beyond the classroom.”

THAT’S OUR
COMMITMENT

It's a stormy Sunday evening in April, and Alaina Buschman's blue hatchback car is filled with catering equipment and the smell of meatballs outside of Jessie B. Denney Tower off Dougherty Street in downtown Athens. The evening was a busy one for the Campus Kitchen at UGA.

Launched in fall 2012, the program of the UGA Office of Service-Learning aims to engage students in sustainable solutions to hunger and food waste.

**“Bonding with one another over a meal
nourishes not only our bodies but our souls.
Whatever our differences, young or old,
rich or poor, weak or strong, we are one.
Restoring food to restore the well-being of
our neighbor, restores us all.”**

— Alaina Buschman, Campus Kitchen Intern

Each month, Campus Kitchen students combine surplus from grocery stores with vegetables from the UGArden Learning & Demonstration Farm to create an average of 1,100 healthy meals for families in the Grandparents Raising Grandchildren program at the Athens Community Council on Aging.

At its core, Campus Kitchen redeems food in order to redeem people by providing a challenging experiential learning opportunity for UGA students and delivering nourishing meals and fellowship to older adults.



UGA HAS CONVERTED MORE THAN
60 ACRES
OF PREVIOUSLY PAVED SURFACES
INTO PEDESTRIAN FRIENDLY LANDSCAPES.



A new burst of construction will more than double the mileage of the current Greenway multi-use trail system, the Oconee Rivers Greenway Commission announced at a “Greenway Expansion Celebration.” The new construction is part of a plan to push trail development into the neighborhoods of Athens’ Eastside, which will give bicycle commuters access to a quiet, tree-lined trail along the river to bike or walk to the University and downtown.

“These two new legs of the trail system are going to bring the Greenway’s transportation aspect to the forefront, making it easily accessible to hundreds of commuters.”

— Nat Kuykendall, Greenway Commission

The Firefly Trail, a 39-mile trail now under construction on the north side of Oconee Street, will link downtown Athens to Winterville and Union Point along the Georgia Railroad route.

These advancements make it safer and easier for students, faculty and staff to commute to and from campus without driving a personal motor vehicle.



“Improving communities through healthier people and families.”

THAT'S OUR
COMMITMENT

FRUIT AND VEGETABLE PRESCRIPTION PROGRAM

The Athens Farmers Market, Athens Nurses Clinic, the UGA Office of Sustainability, Action Ministries, Pinewoods Community Library, and UGA SNAP-Ed have teamed up to provide the innovative Fruit and Vegetable Prescription program, FVRx for short. The program, sponsored by Wholesome Wave Georgia, seeks to help low-income members of the community access the nutritious produce typically recommended to decrease risk of disease.

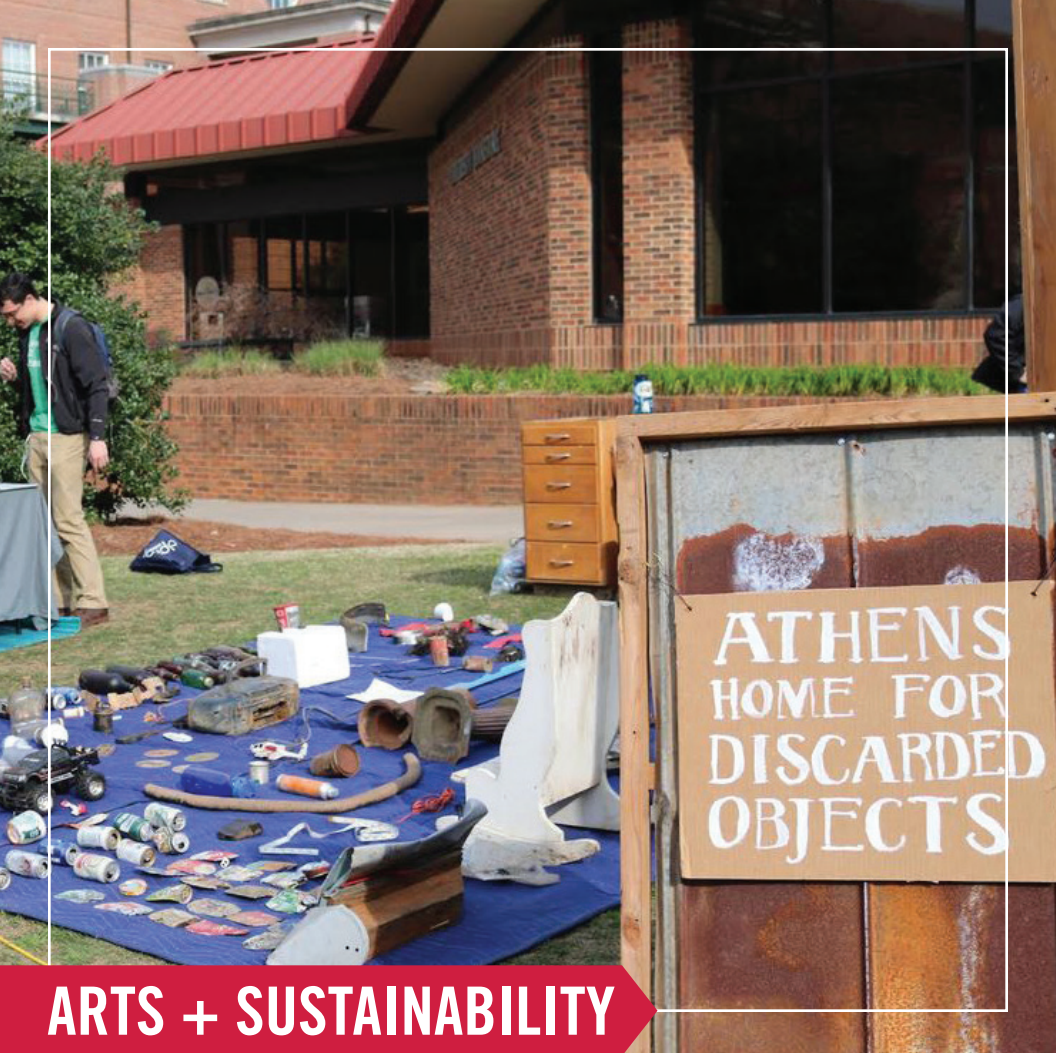
Many of Athens Nurses Clinic's 1,800 patients are dealing with a chronic disease that could be improved by eating healthier foods. Twenty Athenians participated in the 6-month pilot run of FVRx, which included free tokens for fresh foods at the Athens Farmers Market and monthly nutrition classes and cooking demonstrations provided by UGA Snap-Ed.

“FVRx closes the loop in terms of supporting our local agricultural community. Not only are we supporting people in their homes, we’re also supporting the farmers who grow the food that we eat.”

— Jennifer Jo Thompson,

UGA College of Agricultural and Environmental Sciences

The goal of UGA's SNAP-Ed program is to inspire healthy food and lifestyle choices among low-income Georgians. Students and staff involved in FVRx are enhancing our community, one healthy person at a time.



ARTS + SUSTAINABILITY

“Raising awareness and encouraging sustainable practices through creativity and engagement.”

THAT'S OUR
COMMITMENT

If you've ever participated in a highway or river clean up in the Athens area, you know that most of the items that are collected are either recycled or thrown away.

However, during a stream cleanup on the UGA campus, a few items were featured objects in Kira Hegeman's and Abigail West's "Athens Home for Discarded Objects" which invites participants to "adopt" an object by filling out an adoption certificate and imagining a story, name, and date of birth.

Kira Hegeman, the Artist in Residence intern in the UGA Office of Sustainability, and a doctoral student in Art Education in the Lamar Dodd School of Art, focuses on infusing the arts into operational projects and initiatives.

"This program is a way to learn about facets of sustainability on campus... People are receptive to ideas, even the crazy ones, which often lead us to realistic creative solutions."

— Kira Hegeman, Artist in Residence Intern

Kira hopes to encourage people to think about the full life cycles of the objects we use and so often quickly forget about. Her goal is to promote mindfulness and reuse in a culture of consumption and consumerism.

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FVRx

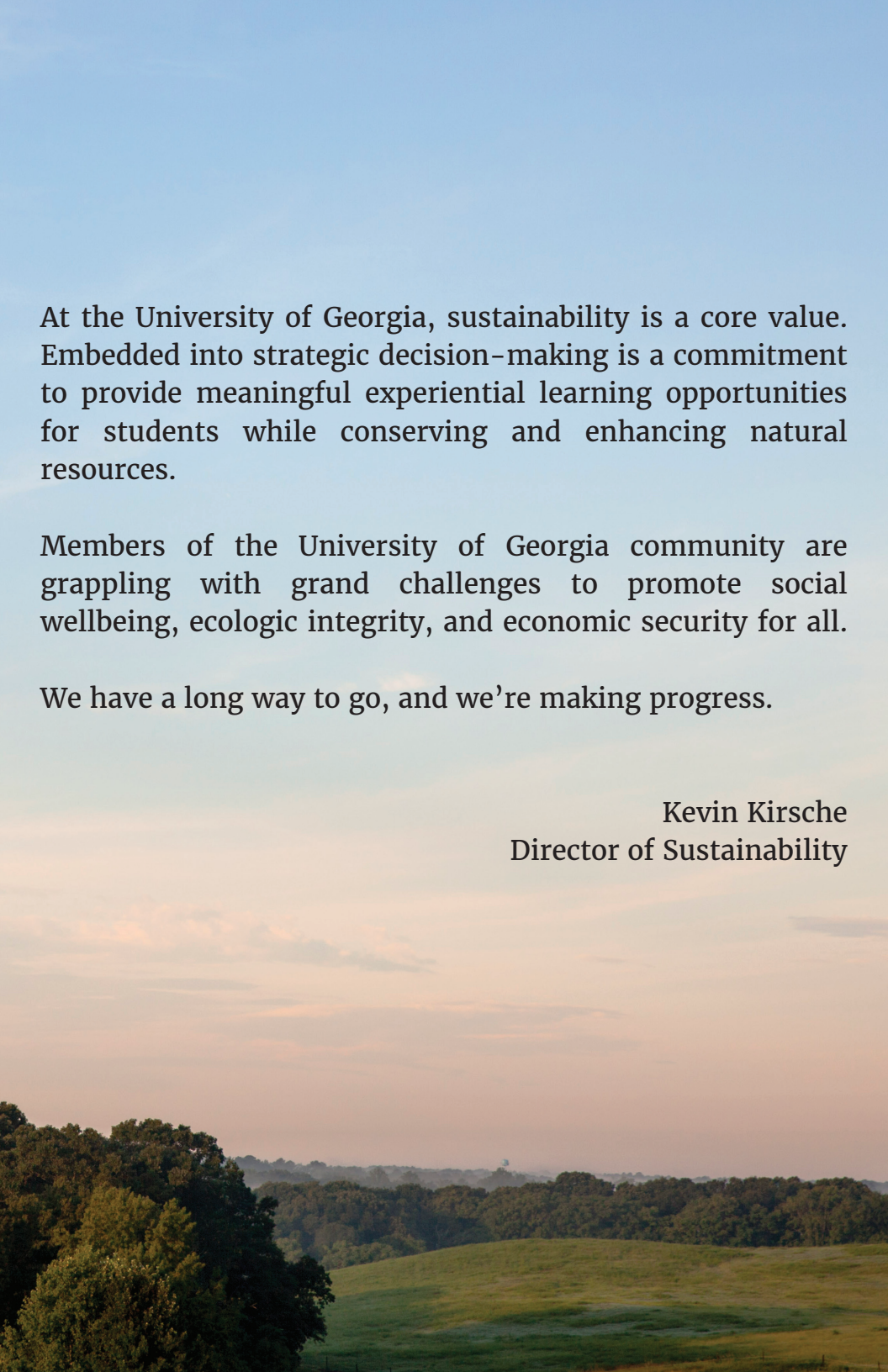
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Artist in Residence

Rebecca Wright, Communications Intern, 2017

**Creating inspired leaders,
stronger communities &
thriving natural systems.**

**THAT'S OUR
COMMITMENT.**



At the University of Georgia, sustainability is a core value. Embedded into strategic decision-making is a commitment to provide meaningful experiential learning opportunities for students while conserving and enhancing natural resources.

Members of the University of Georgia community are grappling with grand challenges to promote social wellbeing, ecologic integrity, and economic security for all.

We have a long way to go, and we're making progress.

Kevin Kirsche
Director of Sustainability



GEORGIA
Office of Sustainability