



UNIVERSITY OF TENNESSEE, KNOXVILLE **SUSTAINABILITY REPORT** 2020



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

CENTER FOR GLOBAL ENGAGEMENT

**SUSTAINABLE
DEVELOPMENT
GOALS**

The University of Tennessee Knoxville supports the Sustainable Development Goals



PRELUDE

The United Nations launched the Sustainable Development Goals (SDGs) as a call to action for all countries to address the sustainability of our world. The seventeen goals are intended to promote prosperity for all while also protecting the planet, and the SDGs offer a framework for understanding and tracking the array of challenges and opportunities that our world confronts. All sectors of society are asked to embrace the goals, and as such, the University of Tennessee along with higher education institutions across the world are doing just that.

Universities play a crucial role in our world's sustainable development -- through education, research, engagement, and as institutional stewards. As educators, universities empower students to delve into critical inquiry and prepare them to be tomorrow's leaders. Students at the University of Tennessee can choose from over 200 SDG-informed courses such as Advertising and Public Relations to the Women, Gender and Sexuality Program. The University of Tennessee is also a major research institution, informing discovery, innovation, and economic development. Through outreach activities and programs, the University of Tennessee also drives learning, discovery, and understanding by reaching local and global communities through its work. Last but not least, the University of Tennessee also champions sustainable development through its policies and practices, including the management of resources, land, and people.

Chancellor Donde Plowman has expressed her support for the university's goals and pointed to the prominence of sustainability in UT's new strategic vision.

"As a flagship, land-grant university, we carry a specific responsibility to serve those around us, and that means building a more just, prosperous and sustainable world," she said. "As our new vision stresses, it is incumbent on each of us to leave the world better than we found it and to help prepare the next generation of thinkers and leaders to do the same."

The following report characterizes University of Tennessee's work around all seventeen Sustainable Development Goals during 2020. The report provides insights in its teaching, research, outreach and stewardship of the campus. As Tennessee's flagship and land-grant university, the University of Tennessee takes pride in knowing that it is working to achieve the Sustainable Development Goals.

A handwritten signature in black ink that reads "Gretchen Neisler".

Gretchen Neisler
Vice Provost for International Affairs
Director, Center for Global Engagement



TEACHING

Sociology 341 - Social Inequalities: This course examines the causes, types and consequences of inequalities based on social, ethnic, racial, sexual or economic differences in communities, regions and nations, and around the world. Special emphasis on American society. Policies and proposed solutions associated with different types of inequalities (and combinations of inequalities) are critically examined and evaluated.

RESEARCH

Center for Behavioral Health Research Partnerships: John Wodarski with the Center for Behavioral Health Research, in partnership with the Helen Ross McNabb Center, is currently working on Tennessee's Homeless Family Services in Supportive Housing program. The goal of this program is to provide both housing and behavioral health care to its participants.

OUTREACH

VOLbreaks: UT students have the opportunity to participate in VOLbreaks, a three-day program during which students volunteer with a nonprofit organization and help further their mission within a community. Previous topics include working low-income youth development, affordable housing and refugee resettlement.

CAMPUS STEWARDSHIP

UT Promise: This undergraduate scholarship program is designed to cover the last-dollar amount of tuition for qualifying students living in Tennessee whose household income is less than \$50,000. It is a program that is based on student success and requires students to complete volunteer service hours and meet with a mentor regularly to ensure success.

<https://tennessee.edu/ut-promise/>





TEACHING

Agricultural Sciences & Natural Resources 480: How to Feed the World: Human population growth will require food production to double by 2050. This is a course that explores ways our global society might sustainably increase food production, in ways that protect our environmental resources while maintaining food security and food justice. It covers socio-political, business, technology, cultural, religious and natural science topics in various learning formats ranging from group discussions to guest lectures. Students are expected to develop potential solutions toward solving the world's food and environmental crises.

RESEARCH

Food Security & Household Pulse Survey: Research from the University of Tennessee's Institute of Agriculture indicates that about one in ten families did not have sufficient food in April and May 2020. About 30% of these households were food sufficient prior to the onset of the pandemic. Jackie Yenerall (Assistant Professor in Agricultural and Resource Economics) found a growth in food insecurity in the first few months of the pandemic. The survey is a collaboration with the U.S. Census, USDA Economic Research Service, the Bureau of Labor Statistics, the National Center for Health Statistics, the National Center for Education Statistics and the Department of Housing and Urban Development. <https://utianews.tennessee.edu/one-in-10-tennessee-families-were-food-insufficient-during-early-months-of-covid-19/>

OUTREACH

End Hunger/Feed Change: This initiative was created by the university to raise awareness and education around the topic of food insecurity, with the ultimate goal of developing policies to decrease the effects of food insecurity and hunger. The group hosted Vols Grow: Seed to Table, a summer grow-along project with a series of educational webinars to help students grow and care for plants. <https://news.utk.edu/2020/06/30/hunger-studies-group-food-insecurity/>

CAMPUS STEWARDSHIP

Big Orange Pantry: The University of Tennessee, Knoxville opened a new on-campus pantry, Big Orange Pantry, with the aim of providing emergency food assistance and other essential items to the university community. The pantry aims to provide holistic support to the community, recognizing that food insecurity tends to be a chronic condition.

<https://news.utk.edu/2020/10/29/new-on-campus-pantry-opens-for-ut-community/>



TEACHING

Nursing 343: Transcultural Nursing for RNs: This course focuses on transcultural nursing perspectives with opportunities for the RN to formulate a deeper understanding of the influences of culture on people's actions to promote, maintain and restore health.

RESEARCH AND OUTREACH

Healthy Eating and Activities Laboratory: Under the direction of Hollie Raynor (associate dean and professor, nutrition), the Healthy Eating and Activity Laboratory (HEAL) conducts research on factors that impact eating regulation and energy balance. These factors can be used to improve lifestyle interventions that assist with achieving a healthy weight in children and adults.

Current HEAL projects include Families Becoming Healthy Together, a program to fight obesity in both children and adults, and Foods within a Meal and Food Liking Study, which aims to determine how different types of food within a meal affect the liking of foods.

CAMPUS STEWARDSHIP:

Be Well: The University of Tennessee hosts a Mental Health Clinic on campus for students seeking psychiatric treatment and a Student Counseling Center for students seeking psychological treatment.

Be Well is a campus-wide initiative created by the Center for Health Education and Wellness that aims to provide students and employees with the resources to live a healthy life in each of the eight dimensions of wellness.

8 Dimensions of Wellness





TEACHING

Theory & Practice in Teacher Education 200: Survey of International Education: This course is a study of selected nations, their cultures and their educational systems, focusing on cross-cultural interpretation and the treatment of common problems and themes within diverse educational institutions.

RESEARCH

Student Engagement Practice and Planning in the COVID-19 Environment: The Postsecondary Education Research Center issued a series of research briefs looking at student engagement during the global pandemic. These studies examine engagement that includes orientation and first year experience, fraternities and sororities, residence life, student employment, multicultural engagement, student activities, student government, community service programs, and student health and wellness.

<https://perc.utk.edu/research/reports/covid-19/>

OUTREACH

The Elevate Program: Jennifer Tourville (Clinical Nursing Professor), Shandra Forrest-Bank (Associate Professor of Social Work) and Courtney Childers (Associate Professor of Advertising and Public Relations) collaborated to launch the Elevate Program, in which UT partnered with Knox County Schools, the Helen Ross McNabb Center, the Metro Drug Coalition and other local organizations to develop a high school recovery program designed to provide educational and recovery-oriented support for local high school students with a history of drug or alcohol abuse.

<https://news.utk.edu/2021/07/06/ut-helps-with-launch-of-recovery-high-school-program/>

CAMPUS STEWARDSHIP

New Faculty Teaching Institute 2020: The Faculty Teaching Institute, organized by Teaching and Learning Innovation, aims to provide educators with a variety of resources to foster equitable and active learning. These resources delve into topics such as active learning, positive psychology and equity-minded teaching to help educators create a student-centered learning experience.

<https://teaching.utk.edu/workshops-events/nfti/>





TEACHING

Women, Gender, & Sexuality Program 200: Introduction to Women, Gender, and Sexuality: This is an introduction to key concepts and methods in the study of women, gender and sexuality, including the fields of gender; feminism; and lesbian, gay, bisexual, and transgender studies. Students will examine historical movements, theoretical debates and contemporary issues, especially as they pertain to the intersection of gender, race, class, sexuality and other dimensions of social inequality.

RESEARCH

Social Action Research Team: This interdisciplinary research initiative launched among faculty and students as the members asked difficult questions about pressing social problems to produce meaningful research, collaborative interventions, and positive social change. Research explores intersectionality; sexuality; race, racism and effects; and measurement. The commitment to social justice-informed scholarship and praxis links all team members. Patrick Grzanka (Associate Professor of Psychology and Chair of the Women, Gender and Sexuality program) directs the Social Action Research Team.

<https://wgs.utk.edu/>



OUTREACH

Adaptations for a Sustainable Climate of Excellence and Diversity: This program is designed to invite, and keep, women in STEM at the University of Tennessee. This program focuses their efforts in three main areas: addressing and reducing implicit bias, expanding networking and building strong work-life balance. Funded by the National Science Foundation, Veerle Keppens (Chancellor's Professor, department head, Materials Science and Engineering) leads the program.

<https://ascend.utk.edu/mission/>

CAMPUS STEWARDSHIP

Safe Zone at UT is an educational workshop open to all faculty, staff and students to learn about appropriate language and skills to use in situations of discrimination; appreciation for the many intersections of gender, sexuality and other social identities; and resources across campus.



6 CLEAN WATER AND SANITATION



TEACHING

Geology 464 - Water Sustainability and Climate: A survey of regional and global water challenges from a geochemical perspective related to surface and groundwater contamination and sustainability, and how ancient civilizations and current human activities have affected water quality in different environmental settings and what kind of techniques and strategies can be applied to water protection, remediation and sustaining clean water for future generations. The influence of global warming and human impact on water quality and sustainability will be discussed using case studies from Appalachia, the American Southwest and coastal aquifers.

RESEARCH

Water Resource Planning: John Schwartz (Director, Tennessee Water Resources Research Center, and Professor) and his team at the Institute for a Secure and Sustainable Environment are examining the impending water crisis head on by working to create a new framework for water resource planning. They aim to address the interconnectedness of urban and rural water needs while also creating technology that advances the current planning methods used for water management.

OUTREACH

Global Clean Water: Four students with Haslam's School of Business have partnered with Procter & Gamble to educate the public on the global clean water crisis and P&G's initiatives aimed at solving it. The students include Kiley Dibble, Michael Rodriguez, Will Slate and Zach Yunger. One aspect of this project included surveying the community to gauge current awareness of these issues and learn how to best bring them to the forefront.

<https://news.utk.edu/2021/03/16/business-students-partner-with-procter-gamble-to-address-global-water-crisis/>

CAMPUS STEWARDSHIP

Campus Water Quality: There are 18 water quality units across campus that are designed to eliminate 80% of the total suspended solids found within our stormwater, along with 7,670 feet of vegetated filter strip that serves a similar purpose.

<https://stormwater.utk.edu/>





TEACHING

Material Science and Engineering 455 - Materials for Energy: This course investigates the role that materials scientists play in the broader issue of renewable energy, climate change and sustainable development; topics include the evaluation of impacts of climate change, national renewable energy plans, materials solutions for renewable energy storage or conversion technologies and case studies of sustainable development.

RESEARCH

Biofuels research: Arthur Ragauskas (Governor's Chair for Biorefining) is a leading researcher in bioenergy and exploring ways to turn plant-based materials into fuel. As part of his research, he works to enhance the usefulness of biomasses by increasing the yield of sugars produced, which are converted into fuel.

"Biofuels can provide a great, almost limitless alternative to fossil fuels, but they also have to make sense economically if we want to have widespread adoption of them," Ragauskas said. "Increasing the output of fuel that a given amount of biomass can produce is a big part of that process, and a great step in the right direction."

https://tickle.utk.edu/ragauskas-helps-lead-biofuel-related-breakthrough-gains-honors/?utm_source=newsletter&utm_medium=email&utm_content=Arthur%20Ragauskas&utm_campaign=tntoday



Girls Camp, an all girls middle school day camp supported in part by CURENT

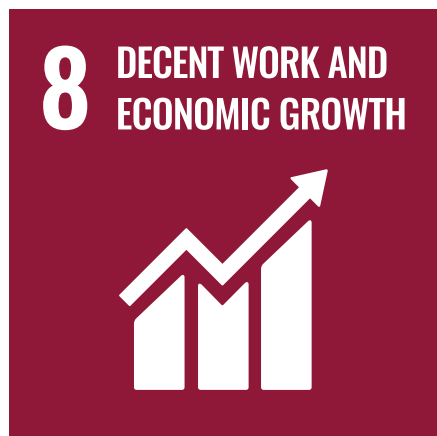
OUTREACH

The Center for Ultra-wide-area Resilient Electric Energy Transmission Networks (CURENT) is an Engineering Research center headquartered at the University of Tennessee and funded by the National Science Foundation and the Department of Energy. The education division has goals of promoting engineering at all levels. The goals are threefold: increase elementary and middle school students' interest in engineering, encourage high school students' interest in electrical engineering and undergraduate research, and support K-12 teachers' engineering content and practice knowledge.

curent.utk.edu

CAMPUS STEWARDSHIP

Commitment to Renewable Energy: The University of Tennessee aims to increase renewable energy procurement to make up at least 20% of total electricity use by 2030. Achieving this goal would lower the carbon footprint of the University by about 19%.

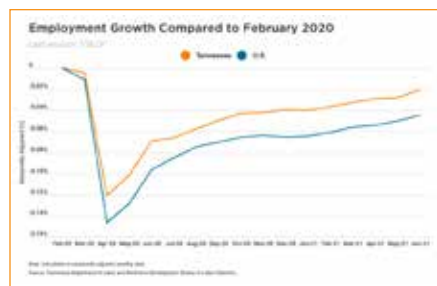


TEACHING

Economics 201: Introductory Economics: A Survey Course: Theory of consumer behavior, theory of firms, supply and demand, costs of production, market models, national income and employment theory, money and banking, monetary and fiscal policy, debt, and international economics.

RESEARCH

The Boyd Center for Business and Economic Research: The Boyd Center partnered with the Tennessee Department of Finance and Administration to create and analyze data showing the effects of COVID-19 on the Tennessee economy. This report showed noticeable increases in unemployment claims as a direct result of the pandemic, but also positive employment growth, an indicator that Tennessee's economy is on the mend.



OUTREACH

Innovation and Economic Prosperity University: The Association of Public and Land-grant Universities recently recognized UTK as an Innovation and Economic Prosperity University. In order to be considered for this award, every college and division with UTK had to develop initiatives to further economic and workplace development and community engagement.

<https://news.utk.edu/2020/11/10/ut-earns-national-recognition-for-economic-and-community-engagement/>

CAMPUS STEWARDSHIP

Raising the Minimum Wage: The University of Tennessee's 2021–22 budget includes raising minimum wage to \$13 per hour for all regular full-time and part-time UT Knoxville employees, including those at the UT Institute of Agriculture and the UT Space Institute in Tullahoma.



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



UT graduate student Chandler Bauder examining a wideband antenna for testing in an anechoic chamber that will be used extensively in the proposed 5G antennas evaluation.

CREDIT: UT

TEACHING

Civil Engineering 311 - Smart Infrastructure and Sustainability Engineering: This course is an investigation of engineering concepts that impact the sustainable design of civil and environmental infrastructure critical for smart communities in an on-site study abroad course. Topics of the course include sustainability metrics, life cycle assessment, urban sustainability, smart transportation, environmental sustainability, low-impact development, resource recovery, influence of local culture and sustainable energy systems.

RESEARCH

Transportation During a Pandemic: University of Tennessee Civil and Environmental Engineering faculty, Chris Cherry and Candace Brakewood, received an NSF RAPID award to study how new forms of transportation, including e-scooters and bike sharing programs, enable commuting options that lessen close contact with other passengers. They look at various ridership trends across different modes of transportation as a means to understand how cities and workers navigate crises.

OUTREACH

Manufacturing Camp: UT recently held a manufacturing camp offered by America's Cutting Edge to train current and future workers on the new technology known as computer numerical control machining. This camp also created a unique opportunity for one-on-one mentoring of precollege teens from the local community by current industry professionals.

<https://news.utk.edu/2021/09/09/manufacturing-camps-showcase-expertise-to-pre-college-industry-professionals/>

CAMPUS STEWARDSHIP

5G Technology: A recent partnership between AT&T and UT will soon bring 5G technology to the Knoxville campus area. This innovative technology will hopefully provide more access to web-based solutions, such as telehealth services and e-learning.

<https://news.utk.edu/2021/08/17/ut-collaborates-with-att-on-5g-research-and-technology/>



Theotis Robinson in 1961



Rita Sanders Geier at commencement in 2006

TEACHING

Business Administration 200 Integrity: Becoming an Ethical Leader & Effective Communicator: This course addresses appropriate written communication in a business environment, including discussion of plagiarism and academic integrity. Areas of content may include resume and cover letter development, report formatting, intercultural business communication and personal reflection.

RESEARCH

Unions: Nathan Kelly (Professor, Political Science) published a paper examining how union decline in one state is associated with the union decline in neighboring states. This paper also looks at the presence of pro union (more left leaning) governments and how it impacts the spread of union decline. Kelly believes these factors are important for understanding the historical and contemporary weakness of American unions, which will ideally provide valuable insight into the strength of the future of unions.

OUTREACH

Navigating Racism and Bias: The University of Tennessee hosted a webinar to support both the UT community and the local Asian community during 2020. The session brought together scholars and campus and community leaders, to address the rise of racialized bias, hate and violence in the U.S.

<https://cge.utk.edu/oae/aapiresource/>

CAMPUS STEWARDSHIP

Honoring African American Trailblazers: The University of Tennessee announced that two of its residence halls will be changing names. Once Orange and White Hall, Geier and Robinson Halls' new names are both made to honor African American trailblazers who fought for social justice and equality. Theotis Robinson fought for the right to attend the state's flagship land-grant university and is now well known as the first African American admitted into UT. Rita Sanders Geier is known for the lawsuit that sought to dismantle inequalities in state's higher education programs.

"Theotis really was that trailblazer who said this university should be open to everybody, and Rita said not only should it be open to everybody, but everybody should have equal access and equal opportunity," Tyvi Small, vice chancellor for Diversity and Engagement, said.

Geier said of the transition, "I couldn't be prouder — not for me and my name — but the fact that we've come to this point to honor me and Theotis in this way."

<https://news.utk.edu/2021/02/25/two-residence-halls-renamed-black-trailblazers/>



TEACHING

Hospitality and Tourism Management 484: Critical Sustainable Tourism: This course explores the historic and current socio-cultural impacts of tourism on the environment, community and government. Understand the complexities of tourism relationships from the host community and tourist perspective. Explain how tourism influences culture, communities and societies through forces of racial and ethnic identity, class, gender, sex tourism and the politicization of tourism. Identifying the power dynamics within tourism planning and development of a tourism destination. Emphasis on the study of both historic and current socio-cultural impacts of tourism on family, community, culture, government and the environment, as well as other current issues.

RESEARCH

The Sustainability Internship Program: This program is open to all students at the University of Tennessee. Students will learn from hands-on experience what it is like to be in an environmental organization, progress in their professional development through training and create a sense of community by collaborating with peers. The goal of this program is to teach students about sustainability projects they can get involved in during college and beyond.

OUTREACH

Waste Warrior: The Office of Sustainability launched a game on the frontpage of their website called Waste Warrior - University of Tennessee Waste Sorting Game. This fun form of interaction is a way to engage the public about the university's current diversion programs. Users get to build their own digital park by sorting materials correctly throughout five different challenge levels.

univoftennessee.recycle.game

CAMPUS STEWARDSHIP

Smart Campus Initiative: This project engages students through service learning and engages the communities with revitalization.

In addition, the Student Environmental Initiatives Facilities Fee offers funding up to \$100,000 for design and research projects. Some examples of approved projects include creating two new rain gardens, getting the UT Gardens officially certified as a Monarch Waystation (a place to sustain current and future generation of monarch butterflies) and acquiring funding to attend conferences for continued learning about sustainable communities.





TEACHING

Economics 305: Markets, Ethics and Capitalism: Market forces and economic decisions in a broad social context. Consideration of moral and ethical issues raised by capitalist systems. Emphasis on market efficiency v. market failure, corporate responsibility v. regulation, wealth creation v. equity, individual freedom v. social welfare.

RESEARCH

Supply Chains & Sustainability: A study of supply chain integrity by John E. Bell (Associate Professor, Supply Chain Management) explores the predictability of sustainability across firms given the growing interest of supply chain stakeholders in sustainability.

<https://supplychainmanagement.utk.edu/research/academic-research/>



OUTREACH

The **Free Store** is a program maintained by the Office of Sustainability. Students and community members can donate their no-longer wanted items such as clothing and household items. Students can also acquire items from the Free Store during pop-up events around campus. This program addresses the notion that “too much” and “too little” can be resolved within the same space. By promoting the Free Store, the campus is preventing usable products from going to a landfill while also providing a resource for those who would not normally have the financial means to access these goods. By creating pop-up events, the Free Store reinforces the belief that the cost of an item or brand is not the same as the value it brings to a person.

<https://sustainability.utk.edu/initiatives/free-store/>



CAMPUS STEWARDSHIP

Zero Waste Commitment: In January 2020 Chancellor Donde Plowman adopted the Zero Waste Commitment. This means that UT commits to achieving a 50% waste diversion rate by 2030 (we hit 33% in 2018), with the ultimate goal of becoming a Zero Waste institution.

“We are lucky to be able to work and learn in one of the most beautiful parts of the country, and I am proud of our commitment to ensuring these same opportunities exist for future generations,” Plowman said. “It’s important to us that we leave our campus and our community better than we found it.”

<https://news.utk.edu/2020/01/14/ut-commits-to-reducing-landfill-waste/>



Office of Sustainability staff help students sort their waste at a zero waste event on the Tennessee Terrace in Neyland Stadium



TEACHING

Philosophy 346 - Environmental Ethics: This course examines issues concerning the nature of the environment and the place of humanity within it.

RESEARCH

Climate and Human Factors: A study in *Geography and Sustainability* by Mingzhou Jin and colleagues explores wildfires and their relation to carbon emissions over the last twenty years in China. Their results suggest that climate and anthropogenic factors influenced China's fire disturbances both geographically and temporally.

OUTREACH

Teaching about Climate Change: A professional development workshop was held for Tennessee teachers based on support from the NSF's Dimensions of Biodiversity program. Tatiana Vishnivetskaya (Research Associate Professor, Center for Environmental Biotechnology) and Susan Pfiffner (Research Associate Professor, Center for Environmental Biotechnology) organized the workshop on "Ice, Permafrost, Microorganisms and Climate Change."

<https://ceb.utk.edu/2020/03/ceb-holds-professional-development-workshop-for-tennessee-teachers/>

CAMPUS STEWARDSHIP

Students Promoting Environmental Action in Knoxville (S.P.E.A.K): Through this on-campus club, students aim to increase awareness of and seek creative solutions to local, regional and national environmental issues. In the spirit of thinking globally and acting locally, they aim to build a community of leaders who act on stewardship and sustainability. They also created and manage the student-run garden on campus, the S.P.E.A.K Garden, located at the UT Culinary Institute.





TEACHING

Wildlife/Fisheries Science 441 - Stream Ecology: This course focuses on freshwater riverine ecology. Emphasis is placed on the stream environment and associated fauna, and the interrelationships therein. Upon completion, students should be able to identify habitat features, selected freshwater invertebrates and fishes, and demonstrate ecological knowledge.

RESEARCH

Pigeon River Recovery Project: This initiative, led by Larry Wilson (Professor, Forestry, Wildlife and Fisheries) and supported by a consortium of partners, has a goal of supporting aquatic diversity in the Pigeon River and to restore the river ecosystem. Populations of native, non-game species of fish and other aquatic life have been reintroduced into the river.

<http://fwf.ag.utk.edu/Sites/Pigeon/Webpages/index.asp>



Pigeon River

OUTREACH

Farm Pond and Fisheries Management: UT Extension produces and hosts an array of publications that serve the interests of the wider public engaged in fisheries and farm pond management. The offices provide information on pond and lake management, raising rainbow trout, stocking ponds and phytoplankton blooms to name a few reports.

<https://fwf.tennessee.edu/extension-fisheries/>



Blotchside logperch

CAMPUS STEWARDSHIP

The **Tennessee RiverLine** is a collaboration between the University of Tennessee, the Tennessee Valley Authority and the Tennessee RiverLine Partnership with a \$1.2 million investment to support the Tennessee River along its 652 miles from Knoxville to Paducah, Kentucky. The aim is supporting environmental stewardship, public health and economic development.

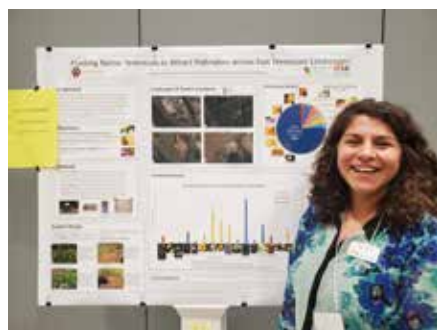
https://drive.google.com/file/d/1uyd1LPcPDwLK7e90borYK_AWcpN5tkAr/

<https://www.tnriverline.org/rivertowns>

<https://archdesign.utk.edu/riverline-ripple-effect-2020/>

<https://archdesign.utk.edu/projects/tennessee-river-project/>





TEACHING

Geography 200: Environmental Issues in National Parks: This course details major environmental issues faced by national parks and other protected areas in the U.S. and abroad, including invasive species, changes in fire regimes, water and air pollution, visitor impacts, and climate change. Focus on interactions between physical and biological processes and human activities. Satisfies General Education Requirement: (NS).

<https://fwf.tennessee.edu/>

RESEARCH

Southern Sustainable Agriculture Working Group: Amani Khalil (Masters' Student, Entomology and Plant Pathology) presented her research at the 2020 Southern Sustainable Agriculture Working Group held in Little Rock, Arkansas. She also won the best poster presentation among 36 other posters presented by students, extension staff and organizations. Khalil's research examines the interaction between native perennials and pollinators. Laura Russo (Assistant Professor, Ecology and Evolutionary Biology) is her mentor.

OUTREACH

Smoky Mountain Science Teacher Institute at Tremont: Every summer NIMBioS (the National Institute for Mathematical and Biological Synthesis) participates in a teachers' workshop in the Smoky Mountains in partnership with the national park. In the weeklong training, teachers examine the biological diversity of the Smokies, explore hands-on classroom based projects and enhance their curriculum. NIMBioS offers a teaching module on *Quantifying Biodiversity*.

<http://www.nimbios.org/education/pre-college>



CAMPUS STEWARDSHIP

Bee Campus: The University of Tennessee was "bee-certified" in 2020 based on meeting eight standards that address the institution's commitment to a bee-friendly environment. Bee Campus USA bestows the designation. Among the practices are developing a pollinator Habitat Plan with locally native, pollinator-friendly plants and an integrated pest management plan that minimizes chemical toxins. The initial bee-friendly habitat is outside Fred Brown Hall.

<https://sustainability.utk.edu/about/recognitions/>



TEACHING

Political Science 474 - International Organizations: This course examines the constitutional framework and key functions of the United Nations. Topics include collective security, peacekeeping, human rights, development, regional organizations and the role of the Secretary-General.

RESEARCH

Human Rights in the Shadow of Covid-19: Students in the College of Law working with Robert Blitt (Professor, Law) presented their research on human rights in light of the COVID-19 pandemic. Topics ranged from freedom of information, privacy rights, health disparities and racial discrimination, and xenophobia and discrimination.

<https://cssj.utk.edu/conferences-and-panel-discussions/>



UT Law School And The Human Rights In The Shadow Of Covid-19 Seminar

OUTREACH

Sew It Sell It: Located at The Bottom, named after a historic Black neighborhood demolished in the 1950s in the name of “urban renewal,” Enkeshi El-Amin (Lecturer, Sociology) and James Williams, (Associate Professor, Retail, Hospitality, and Tourism Management) lead a sewing camp to teaching sewing skills, entrepreneurship skills and empower youth in Black Knoxville.

[Torchbearer.utk.edu](https://torchbearer.utk.edu)

CAMPUS STEWARDSHIP

Legislative Outreach: The University of Tennessee’s Office of Government Relations and Advocacy works as a liaison with local, state and federal legislative and government offices. One of the recent initiatives was advocating for increased student access to 4-H programs on behalf of the University of Tennessee.

<https://advocacy.tennessee.edu/2021/04/09/legislation-expanding-student-4-h-program-access-passes-both-chambers/>



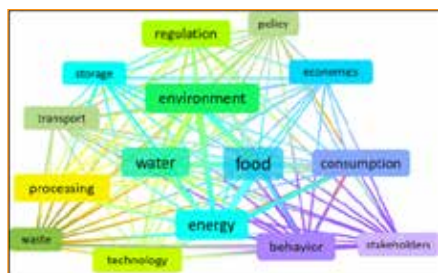
Photo: Steven Bridges





TEACHING

Agricultural Leadership, Education, and Communications 485 - Global Sustainable Development Goals: The United Nations' Sustainable Development Goals (SDG) were adopted in 2015 and provide a framework and direction for all countries of the world toward 17 common global goals. The SDGs are goals toward which our global society has agreed and outline high-level targets in all spheres of human interaction with each other and the planet. This course will provide a transdisciplinary introduction and assessment of these global SDGs. The course will present each of the SDGs, look at global progress toward each SDG and provide opportunities for students to explore the synergies of the SDGs. While emphasis will be placed on the global nature of the SDGs, this course will provide students with the opportunities to reflect on these goals and participate in multidisciplinary teams to develop action plans for addressing multiple SDGs as individuals and for the UT community.



RESEARCH

Food, Energy, Water Nexus: A long term partnership between the University of Tennessee and other U.S. and China-based scholars focuses on the intersections between food, energy and water systems. The partnership draws on researchers at UT as well as Purdue University, Oak Ridge National Laboratory, the Chinese Academy of Science, the University of Science and Technology of China and Nanjing University. It has emphasized the human-nature interactions in these systems with a focus on carbon dynamics, the production of bioenergy and ecosystem restoration.

<https://cge.utk.edu/2021/01/29/solving-shared-problems-at-the-food-energy-and-water-nexus/>



A wind turbine towers over an irrigated farm field in the Salinas Valley of California. Credit: iStock/Pgiam
By Jie Zhuang, Frank L'ffler, Gary Sayler, Guirui Yu, and Guibin Jiang

OUTREACH

International Collaboration on Sustainability: With 53 relationships to international post-secondary education, the University of Tennessee clearly works hard to reach out across the globe. Starting in August of 2020, the university joined up with The School of Agriculture of the University of Buenos Aires in Argentina. This school's vision is to lead the interaction between social and natural systems with principles of sustainability and ethics at the center.

CAMPUS STEWARDSHIP

The Clay and Debbie Jones Center for Leadership and Service connects local businesses with UT students for volunteering. With 19 organizations partnered up with the center for recurring volunteer opportunities, the center also helps with one-time events. This relationship allows students to engage with their local community and for the community to gain extra helping hands.



CENTER FOR GLOBAL
ENGAGEMENT

1620 Melrose Avenue
Knoxville, TN 37996-3531

Phone: 865-974-3177

Fax: 865-974-2985

Email: cge@utk.edu

cge.utk.edu

cge.utk.edu/sdg17/



@UTKGlobal

*This report is a collaborative effort
among the Global Research Office
and Communications Office at the
Center for Global Engagement,
and the Office of Sustainability.*