The University of Tennessee has been widely recognized as a leader in resource conservation and environmental stewardship. In the 2016–17 academic year, UT made great progress toward reducing the environmental impact of campus operations.
Engagement

With more projects and initiatives in progress than ever before, UT faculty, staff, and students are making sustainability a priority on campus and in our communities.

CAMPAIGNS

**MY TINY TRASH**

A waste reduction pilot outreach campaign within the Facilities Services Complex at UT to promote waste awareness and environmental stewardship.

**THE MUG PROJECT**

Students, faculty, and staff can bring their own mug of 24 ounces or less and receive a discount on their drink.

- **$1.19** drip coffee and fountain beverages, a savings of 40 cents or more, and 15 percent off specialty coffee beverages.
- **90% PARTICIPATION** More than 90 percent of Volunteer Dining locations are participating, including Starbucks, Einstein’s, Quiznos, and Subway.
- **BRING YOUR MUG** UT’s 27,000 students use an estimated 3,225 cups per day. Over the course of a year, that requires 485 trees, 290,000 gallons of water, and 360 million BTUs of energy—enough to power four households for a year.

**GREEN OFFICE PROGRAM**

Focused on breeding a healthy, competitive, and environmentally conscious work environment for UT employees, the Green Office program is designed to aid in UT’s progress toward becoming a Top 25 research university by instilling sustainable practices in a variety of workplace settings across campus. The Office of Sustainability works with Green Office partners to develop strategies and provide support, resources, and supplies, personalized to the specific needs of each participating office.

**GREENHOUSE LLC**

The Greenhouse is a Living & Learning Community for freshmen looking to incorporate sustainable practices and principles in their daily lives while living on a college campus.

EVENTS

**POWER CHALLENGE**

The POWER (Programs of Water, Energy, and Recycling) Challenge is a way for the UT community to demonstrate its commitment to reducing the university’s environmental impact. The POWER Challenge is a monthlong competition that pits residence halls against each other in a battle to see which hall is the greenest.

- **WINNER** 2016’s winner: Carrick Hall
- **2016 POWER CHALLENGE RESULTS** Residence halls decreased their energy usage by 16.5 percent, decreased water usage by 13 percent, and recycled 21,385.7 pounds of waste (not including cardboard).
- **COST SAVINGS** Saved $75,813.10 in combined energy, water, and waste disposal costs from the residence halls during the month of October.
ON-CAMPUS PARTNERS

UTOP

The University of Tennessee Outdoor Program (UTOP) provides the campus community with outdoor recreation opportunities. UTOP also boasts a bike shop with convenient short- and long-term equipment rentals.

ISSE

UT’s Institute for a Secure and Sustainable Environment (ISSE) promotes the development of policies, technologies, and educational programs that cut across multiple disciplines, engage the university’s research faculty and staff, and grow in response to environmental issues facing the state, the nation, and the globe.

TENNESSEE WATER RESOURCES RESEARCH CENTER (TNWRRC)

The TNWRRC, housed within ISSE, seeks to improve regional water quality through community-based projects, outreach, education, training, and community empowerment activities. Initiative examples: Half-million dollar watershed improvement plan in Beaver Creek Watershed, Knox County Adopt-a-Watershed Plan (engaged thousands of K-12 students in service-learning for water quality improvement), and statewide professional development training for several hundred professionals per year.

THE COMMITTEE ON THE CAMPUS ENVIRONMENT

Advises the higher administration on institutional policies and behaviors that promote environmental stewardship at UT.

EARTH MONTH 2016

A monthlong celebration every April featuring events, activities, and volunteer opportunities.

BIG GREEN FRIDAY

On the first Friday in April, we wear green. An environmental spin on Big Orange Friday.

EARTH MONTH CELEBRATION

A gathering of environmentally focused organizations from UT and the greater Knoxville community—350 participants.

EARTH MONTH SCAVENGER HUNT

16 riddles highlighting UT sustainable initiatives and projects. 23 teams, 58 participants. 3 hours.

SUSTAINABILITY: THE ART SHOW

UT Recycling showcased 11 local artists highlighting sustainability and sustainability issues.

CAMPUS BAGLESS DAY

On Earth Day 2016, VolShop and Volunteer Dining locations across campus refrained from offering plastic bags to customers to help raise awareness about consumption habits.

ENERGY TASK FORCE

Housed within Facilities Services, the Energy Task Force identifies, evaluates, and funds energy projects on UT’s campus using the Green Revolving Fund.

CURENT

The Center for Ultra-Wide-Area Resilient Electric Energy Transmission Networks (CURENT) is an engineering research center at UT that is jointly supported by the National Science Foundation and the US Department of Energy. CURENT is a collaboration between academia, industry, and national laboratories, and envisions a new generation of electric power and energy systems engineering leaders with global perspectives and diverse backgrounds.

STUDENT ORGANIZATIONS

SPEAK

Students Promoting Environmental Action in Knoxville (SPEAK) works to increase awareness of and seeks creative solutions to local, regional, and national environmental issues. SPEAK aims to build a community of leaders who act on stewardship and sustainability by taking action right here at home.

ENVIRONMENT & SUSTAINABILITY COMMITTEE

The E&S Committee is dedicated to environmental advocacy opportunities, ecological and social sustainability initiatives, and change-making campaigns to promote awareness, stewardship, and action on campus and in the Knoxville community. As a part of the SGA, it is able to implement effective policy on a wide range of issues to ensure a lasting impact at UT.

ECO-VOLS

A peer-to-peer environmental education program within the residence halls aimed at reducing energy and water usage, increasing recycling, and promoting other sustainable living habits.

HYDROLUNTEERS

Spearheading river cleanups, hosting panel discussions, and participating in campus-wide sustainability campaigns, Hydrolunteers creates a platform for community involvement, networking, and learning for students across any UT department interested in all things related to water and environment.

FOOD RECOVERY NETWORK

The UT chapter of the Food Recovery Network fights food waste and hunger by recovering surplus perishable food that would otherwise go to waste from sporting events, dining halls, campus convenience stores, etc., and donating it to the Second Harvest Food Bank of East Tennessee.
Academics

UT students recognize sustainability is a rapidly growing interdisciplinary field with practical applications across virtually all sectors of the global workplace.

SUSTAINABILITY MAJOR

The sustainability interdisciplinary major started in 2012 and has rapidly grown in numbers each year. We are proud to announce that the sustainability major will be moved from interdisciplinary status to become a standalone major within the Department of Geography for the upcoming academic year.

SUSTAINABILITY FOCUSED

42 MAJORS | 9 MINORS

71.88% of all departments feature at least one sustainability course offering.

UNDERGRADUATE

62 FOCUSED | 124 RELATED

GRADUATE

50 FOCUSED | 201 RELATED

EXPERIENCE LEARNING

UT is dedicated to providing students with more opportunities to apply the knowledge, skills, and values learned in the classroom to real-world challenges.

CLASSES

The Office of Sustainability works with professors from a variety of departments to involve their students in environmentally related projects and campaigns.

7 OPEN PROJECTS | 15 IN THE LAST ACADEMIC YEAR

ACTIVE PROJECTS

Mug Project Data Collection: Since 2013, the OOS has been providing projects for students from John Nolt's Philosophy 346 course. Most recently, the students conducted a Mug Project audit and survey to assess the effectiveness of the campaign.

Conceptual Surveys: In spring 2017, OOS began working with Jeff Larsen's Psychology 482 course to conduct a series of conceptual surveys to gain insight into energy reduction practices, fleet management behavior, environmental literacy, sustainability culture, and transportation decisions related to mass transit.

Case Study on Neyland Stadium: A graduate student in recreation and sport management is working with the OOS to complete a case study on sustainability operations and initiatives at Neyland Stadium.
INTERNSHIPS

Both OOS and UT Recycling offer paid internship opportunities for regular and work-study student positions, as well as unpaid internships for experience or class credit. Students work in a variety of supplemental roles, from program development to data collection to operational work.

UT Design Services, housed in Facilities Services, offers student internships each semester that provide both undergraduate and graduate students with meaningful real-world experience in their fields. These students learn about the State of Tennessee Sustainable Design Guidelines and High Performance Building Requirements, and they use this knowledge to work on various architectural, interior design, and engineering tasks for Facilities Services departments. The students also contribute to Long-Range Master Plan updates.

SMART COMMUNITIES INITIATIVE

The Smart Communities Initiative (SCI) encourages faculty to create courses that engage students in solving real environmental, social, and economic issues in their local community. These students receive valuable experience by researching and developing plans to help communities become more sustainable.

WATER RESOURCE AND QUALITY PLAN

A water resource economic assessment and water-quality improvement plan

LIVING CONDITIONS ASSESSMENT

Assessing livability conditions for senior citizens in Grundy County, TN

FARMERS’ MARKET BUSINESS PLAN

Developing a business plan for a farmers’ market in Pikeville, TN

DISASTER PLANNING

Laying the groundwork for local and regional disaster planning

COMMENORATIVE SPACES

Designing commemorative spaces along the Trail of Tears

HOWARD H. BAKER JR CENTER FOR PUBLIC POLICY CHALLENGE

HBPPC is a fun and educational program that requires a semester-long commitment. Established in 2013, the challenge is a real-world experience that shows students how to make an impact on issues through public policy, research, analysis, and teamwork.

At the 2016 challenge, three graduate students placed second, receiving $1,000 in funding to help implement their initiative—Farm to UTK, a policy brief promoting the availability of healthy, sustainable food options on campus.

APPALACHIAN PUBLIC INTEREST ENVIRONMENTAL LAW CONFERENCE

Led by students in UT Law in October 2016, the conference brought together hundreds of eco-minded and socially conscious activists, attorneys, students, scientists, and citizens in the interest of achieving environmental and social justice throughout Appalachia and the surrounding areas.

FORUMS

HOWARD H. BAKER JR CENTER FOR PUBLIC POLICY’S ENERGY & ENVIRONMENTAL FORUM (E&E)

Each semester, four to six speakers are invited to the university to present on research in fields such as ecology, economics, urban planning, law, atmospheric chemistry, and sociology.

UT SCIENCE FORUM

Started in 1933, the UT Science Forum is one of the oldest UT organizations. It focuses on sharing the latest scientific research with the public, giving opportunity to students, professors, and the general public to learn about cutting-edge research at UT, ORNL, and other local facilities.

ECOLOGY & EVOLUTIONARY BIOLOGY (EEB) SEMINAR SERIES

The department hosts a weekly Ecology & Evolutionary Biology (EEB) Seminar Series, featuring academics from universities around the world to discuss their research and supplement the curriculum.
Energy & Emissions

Reducing UT’s greenhouse gas emissions footprint and our reliance on fossil fuels is at the heart of our efforts to become a more sustainable campus. It’s also saving our campus millions of dollars each year.

GREENHOUSE GASES CHART

48.19% REDUCTION IN NET EMISSIONS SINCE 2008

Due to improved GHG reports, there may be some discrepancies.

CHANGE IN METRIC TONS OF eCO₂ OVER TIME

CLIMATE ACTION PLAN

UT’s Climate Action Plan was developed by Facilities Services with major support from OOS, UT Recycling, the CCE, and the Office of the Chancellor, and was first published in 2010. This document presents a conceptual approach that the university can adopt in order to achieve climate neutrality and integrate sustainability and climate change into the curriculum and educational experience of all UT students.

Currently the CAP is undergoing an update, led by the OOS and the CCE. The first draft will be available for public comment in fall 2017.

RECS (RENEWABLE ENERGY CREDITS)

Each year, the Green Fee pays for renewable energy credits to offset 36 percent of the university’s purchased electricity with green power. The program was reevaluated last year and is now able to offset roughly 70 percent of emissions produced through on-campus cogeneration, other stationary sources, fleet transportation, refrigerants and chemicals, fertilizers, and purchased electricity. This move also takes UT from number 10 to the number one spot nationally as the largest consumer of green power in academia.
Infrastructure

Integrating sustainable design into our buildings and landscaping saves money, reduces dependence on outdated technology, and creates a more environmentally friendly campus for us all.

Rainwater Harvesting in Orange Hall

Rain that falls on Orange Hall is collected and travels through a series of complex treatment filters to remove impurities and prevent bacterial growth before it’s ready for reuse.

One tank of rainwater provides:

- 2,991 loads of laundry
- OR........................................
- 27,343 toilet flushes
- OR........................................
- 31 days of irrigation

35,000 Gallon Storage Tank
VOLUNTEER BOULEVARD CAMPUS BEAUTIFICATION PROJECT: PHASE 1

This project aims to improve the roadway’s functionality as well as its aesthetic to better address the needs of the campus community.

- **Removed street parking**
  - Street parking = drivers circling and idling while waiting for spots to open up.

- **Shared vehicle-bike lanes**
  - Helped improve traffic and safety on campus for cyclists and motorists as cycling becomes a more popular mode of transportation.

Landscape improvements were made along each side of the road, curated to naturally absorb stormwater runoff in rainfall events that are one inch or less. Rather than rain flowing straight into the storm drain and right into our local waterways and rivers, the bioswales, native vegetation, and tree wells absorb the rainwater, naturally filtering out pollutants as it flows into the water table.

- **15’ 4,000 new trees, shrubs, and plants (native)**

- **Curb cuts**
  - Allow rain to fall onto the road and flow into permeable areas.

- **15’ 60 newly installed bioswales**

TRANSPORTATION

- **UTOP BIKE SHOP**
  - Open to all students, staff, and faculty Monday–Friday, 1–6 p.m. off the TREC’s loading dock on UT Drive. It also offers short- and long-term rentals on road, commuter, and mountain bikes.

- **RIDE THE T**
  - UT’s transit system, the T, provides students, staff, faculty, and visitors a safe, convenient, and efficient campus-wide transportation service, fare free for all passengers. The fleet features real-time GPS tracking and front-of-vehicle bicycle racks.

- **ZIPCAR**
  - UT hosts two Zipcars, which students can rent for a low hourly or daily rate with gas and insurance included.

- **SMART TRIPS**
  - Smart Trips is a free commuter rewards program that promotes alternatives to driving alone (like carpooling, taking the bus, bicycling, walking, and telecommuting). Participants can win prizes of up to $100 in value each quarter.
UT RECYCLING

UT Recycling was established as a part of UT Facilities Services in 2003 and is designed for effective waste diversion operations and maximum campus participation.

COMPOST PROGRAM

Food waste is collected from all campus dining locations and select buildings and taken to UT Recycling’s composting facility off Cherokee Trail. The food waste is combined with leaves and wood chips, after which it will break down and become a nutrient-rich soil additive which is used at the UT Organic Farm and around campus.

COMPOSTING TIMELINE

- 2001: Leaves and wood chips accepted
- 2005: Coffee grounds from Vol Dining locations
- 2010: Pre-consumer food scraps from Vol Dining locations
- 2016: Paper towels from select buildings and Residence hall composting program in select buildings

ZERO WASTE GAMEDAY

During zero waste gamedays, 241,385 pounds of waste were diverted from the landfill, with an average game diversion rate of 52 percent. UT competed against 79 other schools in the national GameDay Recycling Challenge, taking second in the nation for recycling totals, fifth for highest recycling total in a single game, and 14th in the nation for the waste diversion rate.

The SEC recycled the most of any conference (772,455 pounds). UT accounted for 31.25 percent of all the materials recycled in the SEC, despite being one out of 10 participating SEC schools.

UT Recycling took zero waste gameday into Thompson-Boling Arena for the Vols vs. Ole Miss basketball game where they were able to divert 78 percent of waste from the landfill. This is the first year that UT will participate in the GameDay Basketball Recycling Challenge, and they hope to do more zero waste basketball games in future seasons.

PUBLIC RECYCLING DROP-OFF

Established in 2014, the UT Public Recycling Drop-Off provides the community with a place to responsibly dispose of difficult-to-recycle items. It accepts plastic film and bags, e-waste, scrap metal, glass, and other items that are not accepted through single-stream recycling.

2121 Stephenson Drive, Dock 24, 24/7
recycle.utk.edu/public-dropoff

Waste Reduction

Our goal is to convert UT into a zero waste institution by diverting 90 percent or more of all waste from the landfill through reduction, reuse, recycling, and composting practices.
Green Fee
Officially known as the Student Environmental Initiatives Fee, the fee provides funds for student, faculty, and staff ideas for projects that contribute to a more sustainable UT.

Have an idea? Submit your proposal to sustainability@utk.edu.

PROJECTS

SECOND CREEK RESEARCH STATION
A data collection project led by UT professors Jon Hathaway and Kelsey Ellis. Water quality, flow, and weather data are being collected and analyzed from Second Creek, effectively turning the stream into a living laboratory where we can observe the relationship between climate and our local waterways.

STUDENT DESIGN/RESEARCH SPOTLIGHT
An industrial engineering graduate student took advantage of the Student Design Research Fund to lead the charge in updating UT’s HVAC units to newer technologies that use less energy, last longer, and are more effective in improving indoor air quality. This project is now being continued through the Energy Task Force.

OTHER GREEN FUNDS ON CAMPUS

GREEN REVOLVING FUND
When an energy-saving (and therefore money-saving) project is implemented on campus, the annual monetary savings are set aside for future energy- and money-saving projects.

ENVIRONMENTAL STEWARDSHIP FUND
Created in 2005, the ESF encourages and enables faculty, staff, and other donors to help make the Knoxville campus an outstanding example of environmental leadership.

Similar to the Green Fee and stewarded by CCE, this money is used in projects and initiatives throughout campus that promote sustainability. Some examples include purchasing green power, investing in hybrid and alternative-fuel vehicles, and installing energy-efficient heating and lighting systems as well as promoting energy conservation on campus.
Looking Forward

Efforts to become a more environmentally conscious campus are never complete. We celebrate our achievements today as we look forward to doing more tomorrow.
MAKE
ORANGE
GREEN