



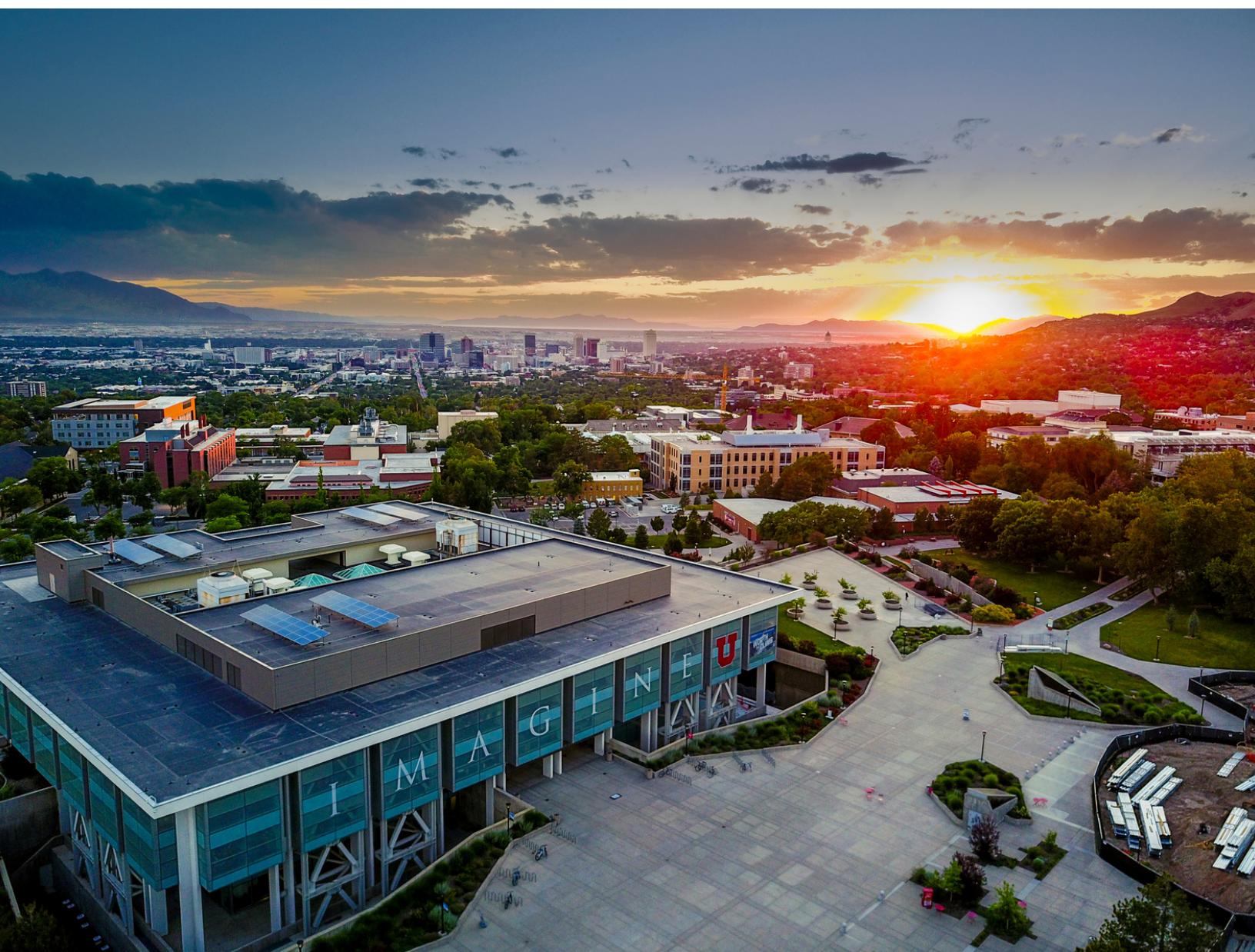
Sustainability at the U

A Guide for Becoming Involved on Campus

Who's this guide for?

Anyone with an interest in sustainability, regardless of how much you already know or how involved you want to become. There are so many sustainability-related programs and initiatives at the U that it can be hard to keep track – especially as sustainability becomes a key part of every department on campus, not just the Sustainability Office.

This guide is a collection of resources from across the University of Utah related to sustainability – from ongoing projects to academic courses to funding opportunities. It is intended to be just as helpful for the graduate student dedicating their career to sustainability as it is for the first-year student who doesn't know anything about sustainability.





What is sustainability?

Perhaps the most well-known definition comes from the Brundtland Commission's 1987 report, *Our Common Future*, which defined sustainability as *meeting the needs of the present without compromising the ability of future generations to meet their own needs*.

This is how we often think about sustainability – in terms of conserving natural resources by recycling, riding the bus, or using energy-efficient appliances. Implementing sustainable practices is especially important for Utahns as the region faces water shortages and many residents along the Wasatch Front experience both human-made and natural air pollution every winter and summer.

But sustainability isn't limited to the environment; its pillars include equity, economics, and ecology as well. The University of Utah defines sustainability as *the integrated pursuit of social equity, environmental integrity, and economic security for current and future generations*.

What's happening at the U?

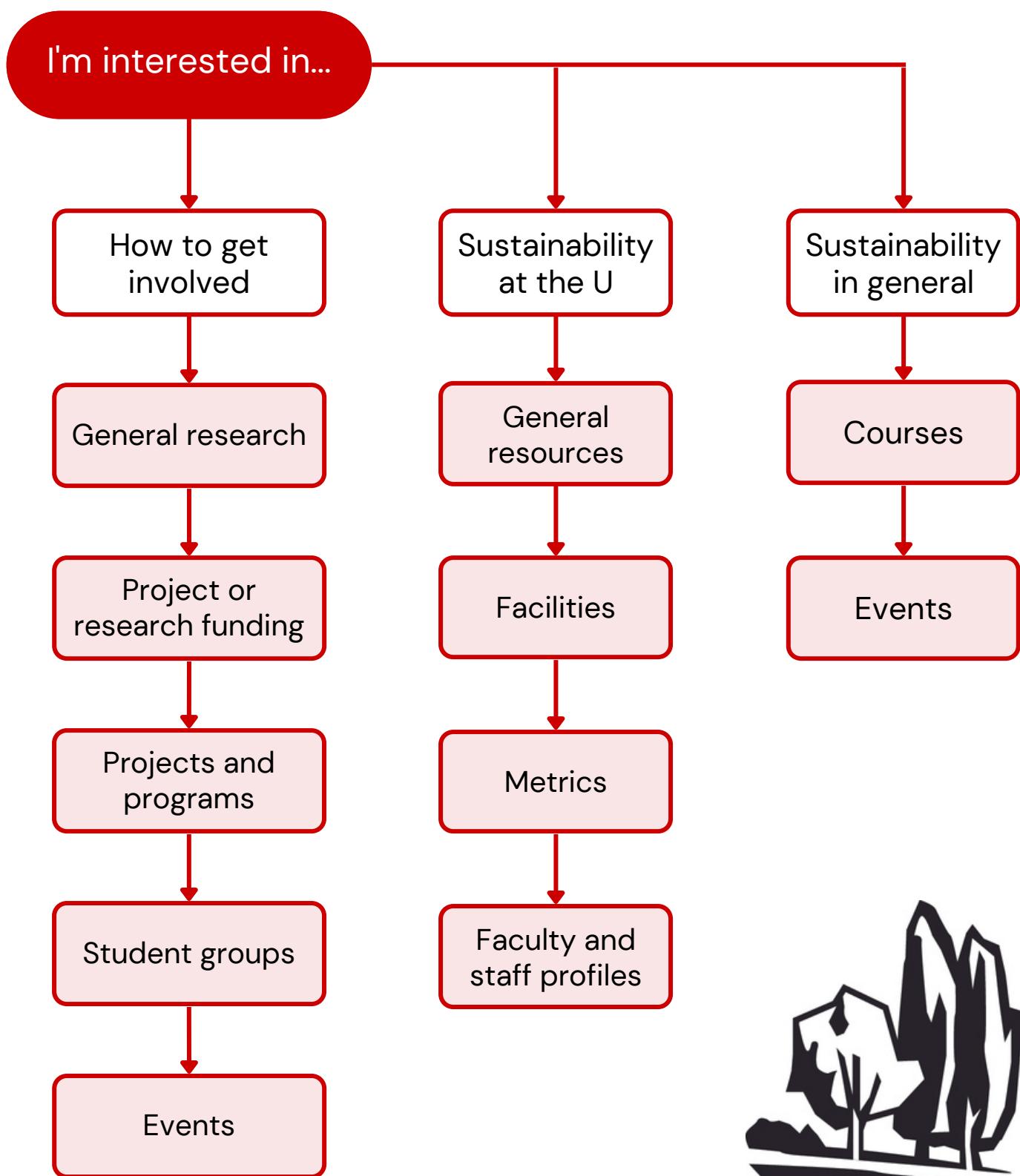
Sustainable behavior can be as broad as working toward carbon neutrality or as specific as installing automatic light sensors. In recent years, the University of Utah has:

- Signed the Presidents' Climate Leadership Commitments
- Implemented a Climate Action Plan, which is currently [being updated](#)
- Created a dedicated [Sustainability Office](#)
- Committed to achieving net-zero greenhouse gas emissions by 2040
- Launched the [Wilkes Center for Climate Science and Policy](#)

Sustainability is a critical aspect of the U's daily operations as well. Our campus is like a small city, with over 50,000 students, faculty, staff, doctors, and patients visiting on a daily basis. Many transitions are already underway, from reducing heating and cooling energy use to rethinking how recycling and waste removal are managed.



Follow the flowchart to the topic you're interested in and click to learn more:



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General Resources

The University of Utah offers a variety of resources to help students learn more about sustainability on campus and beyond. The **Sustainability Office** is the best place to start for an overview of sustainability at the U, as they manage many of the resources included in this guide. The office also sends out an [email newsletter](#) several times each semester.

For those looking for something to listen to during their commute, the Sustainability Office publishes **Sustain**, a monthly podcast which highlights environmental justice research at the U through interviews with faculty and students. The podcast can be found on [Apple Podcasts](#) and [Spotify](#).



Mission: Integrate sustainability as a core principle throughout operations, research, and education at the University of Utah and support initiatives that cultivate the campus as a living laboratory.

Vision: Create a culture of responsibility by integrating the values of sustainability in all facets of the University of Utah and serve as a model for what is possible.



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Facilities

Sustainability is a key consideration in the management of day-to-day [operations](#) on campus. The [Sustainability & Energy](#) group provides support for operational activities centered around the U's goal of carbon neutrality by 2040. They work with a range of campus partners, including the [Waste](#); [Landscape](#); and [Planning, Design, and Construction](#) teams.

S&E also manages [SEED2SOIL](#), which brings together staff, faculty, students, and other stakeholders to tackle projects related to sustainable operations. Current projects include upcycling plastic waste for 3D printing, measuring indoor air quality, and gathering commute data. Students interested in learning more and participating in future projects should contact program manager [Dana Holmes](#).

To learn more about the work being done by staff members to make campus more sustainable, visit [Profiles in Sustainability](#) at the end of this guide.

Mission: Supporting the University in providing a world-class education through safe, comfortable, and reliable building operations for the lowest long-term financial, societal, and environmental costs.



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Metrics

In recent years, the University of Utah has made significant progress on a range of sustainability measures. Some highlights include:

- Reducing emissions by over 30% since 2007 (and on track for 50% by 2025)
- Purchasing over 50% of electricity from renewable sources (#11 in the U.S.)
- Reducing water use by over 20% since 2018

The Sustainability Office's [Sustainability Dashboard](#) tracks the U's progress on these metrics and many more. The data are reported to the [Sustainability Tracking, Assessment & Rating System \(STARS\)](#), which is a way for colleges and universities to measure their sustainability performance.

The University of Utah achieved a [STARS Gold](#) rating in 2020, showing [clear improvement](#) over their Silver rating in 2017 and their Bronze rating in 2011. Fewer than 20% of participating American Universities hold a STARS Gold rating, and only 10 hold the highest Platinum rating.



Events

The University of Utah offers a wide range of sustainability-related events, many of which can be found on the Sustainability Office's [Event Calendar](#). The GCSC shares upcoming events through their [email listserv](#) as well. Several notable events or series are listed below.

The [GCSC seminar series](#) brings researchers from around campus and across the country to share their work on sustainability.

Recent topics include:

- Equitable access to green space
- Relocation as response to climate change
- Attitudes toward sustainability among mining engineers

[Problelunity sessions](#) bring students, faculty, and staff together to explore campus sustainability issues, such as waste and recycling, commuting, and campus ecosystems.

The Sustainability Office hosts [Earth Week](#) during the spring semester and [U Bike Week](#) during the fall semester.

The S.J. Quinney College of Law's [Wallace Stegner Center](#) holds [several lectures](#) each semester on environmental-related topics, as well as an [annual symposium](#). Past topics have included water rights, the Great Salt Lake, food security, and public lands. Their events are open to the public and accessible for non-law students.



Courses

Almost 80% of departments at the U offer at least one sustainability-related course. The U [identifies these courses](#) with a Sustainability-Complete or -Limited label depending on the extent to which the course addresses sustainability challenges and the three pillars of equity, economy, and environment.

The College of Social & Behavioral Science offers an undergraduate major in [**Environmental and Sustainability Studies \(ENVST\)**](#). The interdisciplinary major has emphases in Air, Water, & Health; Conservation & Land Management; Food Systems & Community; and Ecojustice Education.

The [**Undergraduate Certificate in Sustainability**](#) and [**Interdisciplinary Graduate Certificate in Sustainability**](#) are offered for students in any discipline. Students can explore ideas about sustainability, policy, science, and society by taking courses outside of their home department and college.

The Global Change & Sustainability Office offers [**two specific courses**](#) related to sustainability. *SUST 6000 Global Changes & Society* is an interdisciplinary, project-based course focusing on a [**different topic**](#) each spring. *SUST 6800 GCSC Seminar* is a one-credit course associated with the [**GCSC Seminar Series**](#).

Majors with sustainability ties include:

- Environmental Humanities*
- Earth & Environmental Science
- Urban Ecology
- City & Metropolitan Planning*
- Parks, Recreation, and Tourism
- And more! Almost every major can involve sustainability in some way.

* indicates graduate degree



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General Research

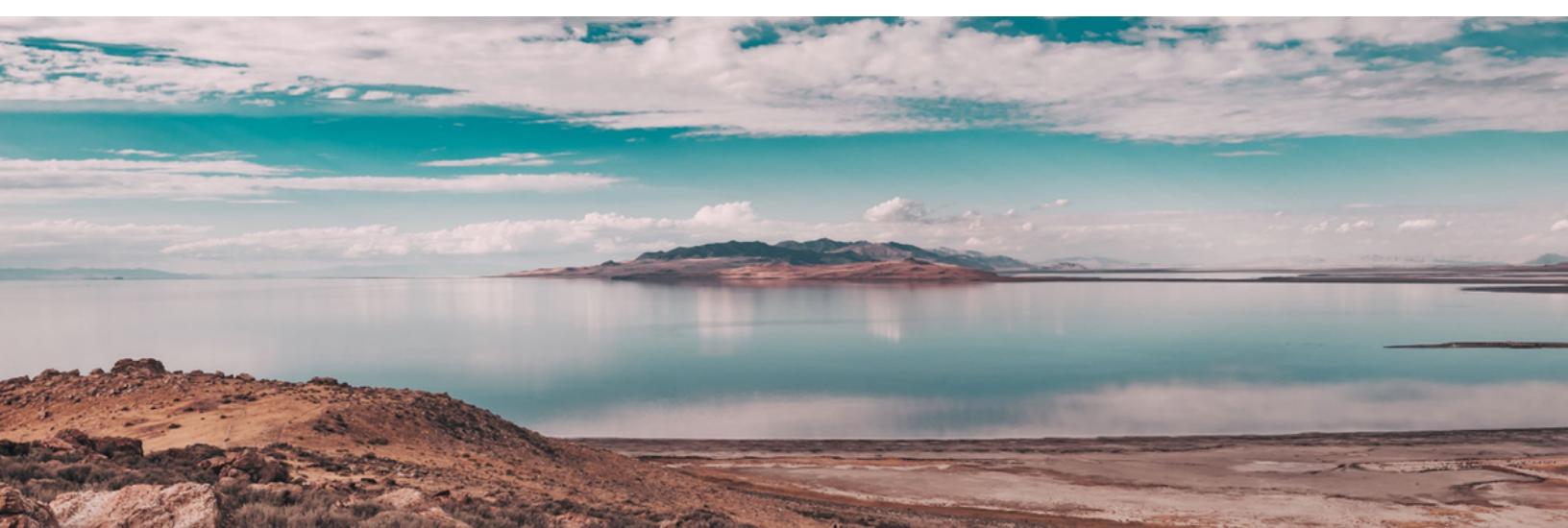
Many faculty and students are involved in sustainability-related research at the local, national, and global level. The [**Global Change & Sustainability Center**](#) serves as a clearinghouse for a wide variety of interdisciplinary environmental and sustainability research. This research is organized by nine themes: [air quality](#); [built environment and communities](#); [climate change](#); [ecological and environmental change](#); [energy](#); [food systems](#); [justice, equity, and diversity](#); [nature and culture](#); and [water](#).

The pages above link to initiatives, programs, or centers related to that particular theme. The GCSC's [**Sustainability Inventory**](#) allows individuals to search for faculty and/or publications associated with each theme. Marriott Library manages a [digital collection](#) of sustainability-related reports as well.

The GCSC also hosts a [research symposium](#) each spring to highlight graduate research related to the environment and/or sustainability. For faculty, the Center offers semesterly [think tanks](#) where faculty can share their work and participate in facilitated discussions on specific topics.



In August 2022, the University of Utah launched the [**Wilkes Center for Climate Science & Policy**](#), which will direct research on climate solutions, impacts, and forecasting with an emphasis on connecting scientists with policymakers. The Wilkes Center offers a range of research funding opportunities for [undergraduates](#), [graduates](#), and [faculty](#).



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Projects and Programs

Outside of the GCSC and Wilkes Center, students can become involved in sustainability through a range of projects and programs. A few of these groups are listed below; several offer research or volunteer opportunities.

Edible Campus Gardens teaches students about ecologically sound and just food systems through volunteering, learning, and research.

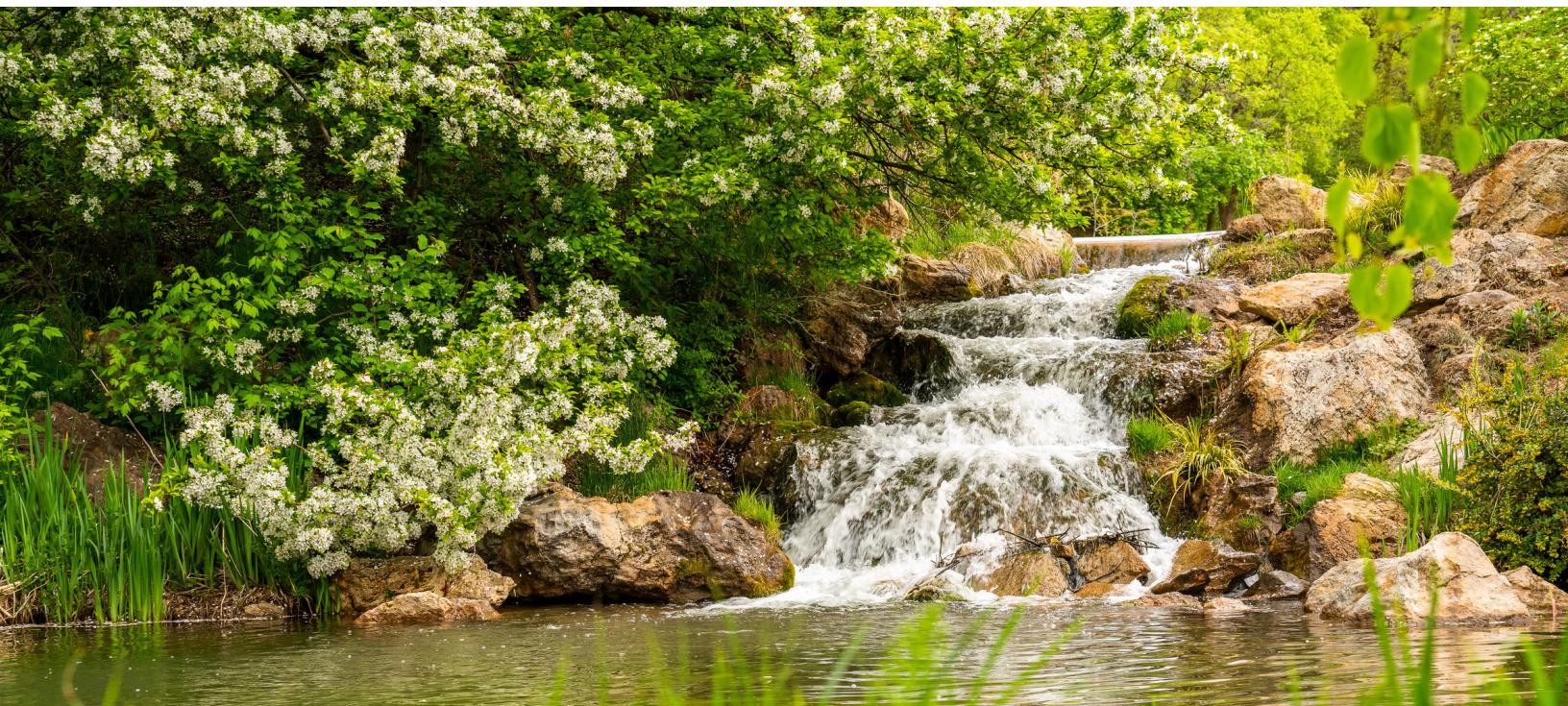
Red Butte Creek flows through campus, acting as a living laboratory for research and teaching.

The **Landscape Lab** at the Williams Building transformed a grass lawn into an educational and social space anchored by green infrastructure for stormwater runoff. Contact [Dr. Sarah Hiners](#) to learn more.

The **Wasatch Environmental Observatory** (WEO) gathers a range of data along the Wasatch Front for use in hydrological, meteorological, atmospheric, and ecological research.

The **Taft-Nicholson Center** in Lakeview, MT works to increase environmental awareness through personal connections to nature.

To learn about other opportunities to become involved on campus, please contact [Emerson Andrews](#).



Funding

The **Sustainable Campus Initiative Fund** is a grant program for campus-related sustainability projects led by students, faculty, and staff. SCIF is supported by student fees and provides over \$100,000 in funding each year to a wide range of projects. Students who are interested in applying for funding should meet with Emerson Andrews to discuss the application process.

The **Global Change & Sustainability Center** provides small grants for a range of graduate student activities, including thesis-related research, conference travel, and professional development. To qualify for funding, students must be working on interdisciplinary research that is aligned with the GCSC's mission and advised by a faculty member who is actively affiliated with the GCSC.

The **Undergraduate Research Opportunity Program** (UROP) provides students with funding to pursue a research or creative project under the supervision of a faculty member.



Examples of past SCIF projects

- Installing anti-bird-strike window film on Presidents' Circle buildings to prevent the death of cedar waxwings
- Planting native vegetation along the Red Butte Creek corridor to aid in restoring the riparian ecosystem
- Replacing the irrigation system at the Edible Campus Garden to reduce leaks and flooding
- Supporting an art installation about the intersection of disability and environmental justice in SLC

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Student Groups

The [**EnviroClub**](#) promotes awareness of both local and global environmental issues on campus and in the community through discussion and community engagement.

There are several groups focused on food systems and gardening, including:

- [**Edible Campus Gardens**](#)
- [**Food Recovery Network**](#)
- [**The Hydroponic Club**](#)
- [**Slow Food**](#)

[**ASUU's Sustainability Board**](#) hosts events and partners with the university to implement sustainable practices.

[**Women for Energy Efficiency**](#) is hosted through the Department of Energy's [**Industrial Assessment Center**](#) at the U.

[**Net Impact**](#) is for graduate students in the Eccles School of Business who are interested in driving social and environmental change.

The [**Sustainability in Medicine Interest Group**](#) is for medical students interested in how physicians and healthcare facilities can practice medicine in a way that minimizes environmental impacts.



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Profiles in Sustainability

Click on each photo to learn more, or keep scrolling down!



Lissa Larson
*Associate Director,
Sustainability & Energy*



John Walker
*Grounds Supervisor,
Landscape Maintenance*



Ali Lewis
*Landscape Architect,
Campus Planning*



Alexis Lee
*Director of Environmental
& Social Sustainability,
University of Utah Health*



Dr. Brenda Bowen
*Professor and Director,
Global Change &
Sustainability Center*



Solomon Brumbaugh,
*Transportation Demand
Coordinator,
Commuter Services*

Lissa Larson

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Lissa Larson's work as the Associate Director for Sustainability & Energy in Facilities Management encompasses everything from metering water and electricity use to implementing new technologies and practices in the U's pursuit of carbon neutrality. Lissa's work embodies the philosophy of "sustainability as a service," which is focused on creating operational and data-driven change to use our resources responsibly.

Over the last 6 years, the Sustainability & Energy team has increased the University's

renewable energy from less than 5% in 2018 to more than 70% (projected) by the end of 2023. She is excited to continue incorporating new technologies and improving campus sustainability over the next 17 years as the U becomes carbon neutral. Lissa shares that "it is hard to change everything at once" but the size of the university means that even small changes can have a drastic impact, such as changing the lights to LEDs or making the campus heating and cooling systems (HVAC) more efficient.

Lissa works closely with faculty, staff and students to plan and implement new projects. Recently, she collaborated in creating a website which compiles all of campus waste information – waste.utah.edu – which is now used across campus to make informed waste decisions. Currently, Lissa is working on a campus wide emissions reduction plan to reduce the U's impact on local air quality.

Students interested in working on operational campus sustainability projects can apply for internships in the Facilities Management office through the main campus jobs portal. Additionally, all campus community members are welcome to participate in the [SEED2SOIL](#) program focused on campus sustainability projects.



John Walker

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Through his tenure as Grounds Supervisor, John has implemented sustainable practices in his own work while integrating his sustainable practices with broader trends in the university and community. John's push to increase data collection across facilities has created a detailed decade-long record of water conservation, chemical use, plantings, and across campus, informing moves to optimize planting, as well as water and pesticide use. John's work extends from managing snow removal during blizzards to perfecting water-efficient campus ecosystems, keeping planting beds pest free to recommending changes in new architecture projects on campus.

Campus is essentially a small city, John says, where students are real participants in campus infrastructure, working more closely with administration than residents of, say, Salt Lake City, usually have the opportunity to. These roles create opportunities for reciprocal relationships between students, staff and faculty, and John has worked with numerous students on academic projects to innovate infrastructural and ecological solutions to issues on campus. Universities are uniquely situated to explore and experiment with the best practices in the world of sustainability due to the confluence of funding availability, research innovation, and the passion of students. Working with a campus allows John to implement experimental technologies, more ecologically friendly chemical treatments, and to conduct in-depth exploratory analysis of problems to create data-driven solutions.

Water use is a major sustainability priority on campus and in Utah more broadly. Beginning in 2020, John has worked to implement a smart sprinkler system which utilizes cloud-based weather monitoring across campus to make real time changes in irrigation strategies. Ongoing efforts with engineering students and the rest of the Facilities department work to fine-tune these systems, but the updated sprinklers and move towards cloud-based data storage have already made dramatic improvements in water use across campus.

Currently, the Landscape Maintenance department is working on imagining new space use for under-utilized land on campus. It is working with groups in the engineering department to analyze and improve soil quality, and is also working on increasing the cover of native plants across campus. If students want to get involved with these efforts, proposing in-class projects and pitching work through the Sustainable Campus Initiative Fund are ways that John and the department often engage students in their work. Campus as a Living Lab projects on the SEED2SOIL project list are also a great place to start engaging with John's work.



Ali Lewis

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Ali Lewis is a Landscape Architect and Planner within the U's office of [Planning, Design, and Construction](#). Her role encompasses a wide range of responsibilities, such as reviewing landscape plans for new development, drafting small design-build projects on campus, engaging student groups, and managing studies related to planning and site design. One such project is the Zero Waste Center Feasibility Study currently underway.

When reviewing drawings sets for new development, Ali's primary focus is the planting and irrigation plans to ensure they meet sustainability goals. Additionally, she meets with cross-department committees, such as the Landscape Master Plan Committee, which lays out design goals for outdoor space university-wide. Working in facilities within an academic institution allows for the inclusion of voices and participation that does not always occur in other design spaces. Ali says that her work feels especially innovative when campus groups within facilities and academics alike can bring ideas together to problem-solve.

Talking about how she hopes to see sustainability evolve in her work, Ali envisions a proliferation of site standards to raise what expectations around sustainable practices look like—while the U has made a commitment to reduce water use within the landscape, there are opportunities to go beyond water consumption and identify opportunities for our grounds to serve both the campus community and the environment with ecosystem services like pollinator species, passive stormwater management, food for fauna, carbon sequestration, and building healthy soil.

Students can get involved in work like Ali's through internships in the office of Planning, Design and Construction, as well as by pitching and participating in SCIF projects related to campus design. A great example of student-led projects like these are the pollinator garden next to Architecture, and signs identifying campus trees. Examples of spaces designed and built by students can be found across campus! While the zero-waste feasibility study is still currently in an information gathering stage, be on the lookout for surveys and opportunities to provide feedback in coming months, and take a look at the U's new online zero-waste resource at [waste.utah.edu](#).



Alexis Lee

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Alexis Lee is the Director of Environmental and Social Sustainability for University of Utah Health. While her work centers around the health campus, she is a pillar of the One U initiative. She collaborates academically and operationally with faculty, staff, and students on main as well as the medical campus. Unlike many other universities, the U has extended its President's Climate Leadership Commitment of carbon neutrality to both main campus and the university health system.

With climate change listed as the World Health Organization's #1 threat to public health, it is critical that health systems be included in transitions away from carbon and that climate-related health impacts be emphasized in health sciences curriculum. To support educational advancement, Alexis has received grants to develop curriculum which will be taught to University of Utah medical students, preparing them to address climate related health complications. She has also supported graduate students in the U's Professional Masters in Science and Technology Program with projects such as creating a resource used by hospital food services to purchase more sustainably. This includes reducing packaging, decreasing redundancy in menu items, and sourcing foods that obtain 3rd party certifications, and have lower emissions involved in their production.

Hospitals are unique in that they have significant 24-hour materials and energy demands, and also have a responsibility to put patient safety first in the pursuit of more sustainable practices. Current efforts include moving away from single-use materials in the operating room, and switching to high-quality items that can be cleaned and reprocessed whenever possible, in addition to the significant changes already underway in food sourcing and service.

To engage with the work Alexis is doing, filling gaps in data collection is the current area of greatest need within U of U Health. Whether for a class project or funded through an initiative like SCIF, an audit of U of U Health Waste and an audit of sharps containers that could be made reusable are two projects that Alexis is looking for support on in the near future.



Brenda Bowen

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Brenda Bowen is a professor of Geology and Geophysics as well as the director of the University of Utah's [Global Change and Sustainability Center](#) (GCSC). The GCSC was founded in 2011, and since coming to the U in 2012, Brenda's two roles have been thoughtfully and creatively intertwined. Brenda works to make the GCSC inclusive to all, and wants faculty across all 18 colleges of the university, who are doing sustainability work, to take part in the research community. She views her role as a connector: between students, faculty, and campus organizations united around the common goal of imagining a sustainable future.



The GCSC is the research arm of sustainability initiatives on campus which supports faculty and students in their sustainability related work. Brenda strives to make the GCSC community one of collaboration rather than competition where faculty and students alike can conduct fulfilling interdisciplinary work. This attitude has led the GCSC to partner with new entities on campus, like the [Wilkes Center for Climate Policy](#), to integrate research with policy and applied work.

Brenda's own projects focusing on geologic surface processes have been enriched by the relationships made through the center, such as her recent work on the Bonneville Salt Flats. Through connections with other GCSC faculty, she collaborated with faculty in Atmospheric Sciences, Biology, Parks Recreation & Tourism, Communications, Engineering, Art, and Planning. Brenda says that she wouldn't have been in a position to imagine a project so interdisciplinary without the connections that the GCSC fosters, and encouragement of work that is interdisciplinary from the motivating idea, and not just in analysis or methods.

Ways you can engage with Brenda's work lie primarily in engagement with the GCSC: the center hosts seminars every other week, bringing in speakers from around the country to talk about their work in sustainability. Students can take a one-unit class along with the seminar, which also allows for opportunities to have (free!) lunch with speakers on presentation days. The GCSC also offers funding opportunities up to \$3000 in spring and fall for graduate students, and a spring symposium, open to all graduate students with work related to sustainability. Additionally, undergraduate and graduate certificates in sustainability provide opportunities for professional advancement, collaboration with peers, and allows for many students to receive additional recognition for taking courses they are already excited about!

Solomon Brumbaugh

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Solomon Brumbaugh is the Transportation Demand Manager in the office of [Commuter Services](#) at the U. Solomon's work ranges from planning parking lot improvements to running the campus bike shop, and communicating with the active transportation team to create an integrated plan for getting students, staff, faculty, and visitors to campus.

The U's transportation demand is unique, with both large commuter and residential populations. The biennial commuter survey, released this coming fall, offers commuter service the clearest picture of how campus users arrive on-site, and which changes may streamline transportation for those users. Additionally, Solomon is working to implement an integrated mobility program which adds new sources of data and creates an incentive model to shift transportation away from single occupancy vehicles. The platform will be coming in the next year and offers positive reinforcement for individual users shifting their daily practices.

A primary partner that Commuter Services works with is the Utah Transit Authority. The UTA's relationship with the U is one of the best working relationships between a transit authority and university in the PAC-12. The U works with UTA to plan service around campus, make routes and schedule, and better serve users. Projects that involve UTA collaboration that are in the works include a transportation hub near the health campus, and continued conversation over route development and scheduling.

In addition to the logistical work involved transportation demand management, Solomon collaborates with students on SCIF and class projects. Two recent projects advancing sustainability are collaboration with students in electrical and computer engineering to create electric vehicle chargers to be implemented on campus. The engineering department reached out to Solomon with the idea, and currently has four pilot chargers implemented on campus, working on the possibility of scaling up to serve all of campus' EV needs. Solomon is also working with students on a SCIF funded project to create a vending machine for do-it-yourself flat fix kits outside of the campus bike shop. The office of commuter services is very open to sharing data and feedback for projects of all types. A project that Solomon is interested in collaborating with students on in the near future is creating a way to monitor parking lot use and space availability in real time, which may be able to be integrated with the mobility management incentive program!



A Final Note

There are so many opportunities for students to get involved at the University of Utah, and both faculty and staff are open to and excited about collaborating with students on sustainability-related projects. It's part of what makes working at a university so innovative and engaging. Too often, though, students use data and resources provided by staff but don't share their results once a project is complete. It's important to share your findings with campus partners because they can help make the U a more sustainable place.

If you have questions or interests that weren't addressed in this guide, we encourage you to contact the [Sustainability Office](#) to learn more and get involved.



*Created by Dallas Herndon, Jazmine Lopez,
Daniel Ritter, Maggie Scholle, and Anahi Yerman*