Texas Green Tours: Web Applications

Mariana Silva
Engineering
marianasilva@utexas.edu

Sharon Zhu
Engineering

Melissa Flores

Kristen Cetin

Nickolett Daniels

Celina Gimang

Monica Monroy

Joshua Marasigan

Kierra Dotson

Texas Green Tours is a program at the University of Texas at Austin (UT Austin) that aims to educate the UT Austin campus and the wider community about the broad topic of sustainability, through hands-on educational programs. The University of Texas campus strives to advance sustainability efforts on its campus, in its coursework, its research, and its facility and service management practices. The UT Austin Community has achieved great success in the development and implementation of a wide variety of highly-commendable sustainability focused efforts, including LEED buildings, recycling programs, sustainable food practices, energy and water savings initiatives, and renewable and highly-efficiency energy generation. This also includes opportunities for UT Austin students to engage in sustainability-focused courses, majors, concentrations, study abroad programs, and student groups. Many research projects also center on the development of technologies to enable a more sustainable future. Many of these programs and research initiatives are highly visible, and serve as tools and live demonstrations of sustainability for use in educating about sustainability and sustainable practices. Overall Texas Green Tours aims to harness the educational opportunity the high concentration of sustainability programs and initiatives the UT Austin campus provides, to inform and inspire others about sustainability.

The City of Austin is home to nearly one million people, many public and private schools, and over 50,000 UT Austin students and 24,000 UT Austin faculty and staff. The City of Austin and UT Austin also host tens-of-thousands of visitors each year, including thousands of incoming and perspective students, children from local K-12 schools, green professionals and influential leaders. Texas Green Tours aims to connect those interested in sustainability to hands-on, live opportunities to learn about and see examples of sustainability in action. Texas Green Tours welcomes interested groups to visit the UT Austin campus, to participate in an interactive
Tour of the UT Austin campus and sustainability-focused activities. For K-12 students, they learn about sustainability and college opportunities, including a focus on several of the following modules of information based on the level and interest of the group: Sustainable Infrastructure, Energy & Water Conservation, Sustainable Food, Transportation, Landscaping, Research and Initiatives, and Activism. The most impactful and engaging learning includes seeing and interacting with real-world examples of what is being discussed. To engage, inspire, and empower students to care for their environment, their future, the future of the world they live in, the goal of this program aims to engage K-12 students in the importance of sustainability and encourage continued learning and education. Tours are led by knowledgeable and passionate UT Austin students. These students also benefit from the program through improved knowledge, presentation and public speaking skills, and being part of a connected community of leaders and educators of the future. For the general tours and those to UT Austin students/faculty/staff the goals are very similar: to inspire, connect, teach, and motivate all attendees. With the one-hour tours we hope to inform and empower the UT Austin community about the place in which they live and work. As mentioned before, we have given tours to classes and hope to continue doing so. We work with professors to ensure the information they want to share is being delivered to the students. It is also very helpful for faculty and staff to attend the tour in order to learn more about what is happening in other parts of campus.

During its first year (2014-2015), Texas Green Tours provided tours for over 275 attendees; of those 130 were from middle and high schools. Groups included Clint Small Middle School, New Manor Tech, Cedar Creek High School, Akins High School, UT Austin Introduction to Environmental Science class, and other UT Austin students, faculty, and staff. During the upcoming year, the program will continue to grow and host a larger number of high school and middle school groups, and hold regularly scheduled one-hour tours to enable faculty, staff, students, and visitors to attend and learn more about sustainability efforts on campus. To support the growing program, the leadership team is expanding from three students to include seven student leaders. Texas Green Tours is also collaborating with additional sustainability-minded programs throughout campus and the City of Austin’s Office of Sustainability. The plan for the program is to host up to four K-12 tours each semester, and develop new partnerships in order to enrich our routes and connect with more schools around the area. For more information on K-12 tours, here is a recent article about the program that Megan Peyton from EcoRise wrote about the program.
Another important aspect of the Texas Green Tours is the development of an online interactive map containing all of the features in a spatially linked database. These features include all of the information we gathered during the beginning of the project, photos taken for each place, and videos to accompany the information. We believed that the first step to creating a great program was to gather all of the information into one place, so that we would know about all of the initiatives/courses/facilities/programs that are taking place at UT Austin. This map will contain layers showing the different aspects of sustainability so that a person looking at the map can choose to see only LEED certified buildings, public transportation amenities, and other categories from the database mentioned prior. The map will be a great tool for those who cannot attend a tour in person or would like to create or follow their own personal tour. In addition, Texas Green Tours is also developing a website where all audiences can sign-up for tours, read about the initiative, and contact team members. The website is also where the map will be hosted. This year the team will begin looking at the possibility of creating an app that will encompass the entire program. Texas Green Tours also aims to create accessibility videos for each stop, with the goal of linking the videos with the map and website. In order to achieve these goals, the team focused on technology has expanded to include three students, two of which are computer science and electrical engineering majors.

UT Austin has many classes focused on sustainability inside every college, thus Texas Green Tours also plans on harvesting that knowledge and learning space to help students experience what else is happening on the UT campus and in their community. One way, as mentioned before, is through giving tours to specific classes such as the Introduction to Environmental Science course. In addition, this year Professor Lieberknecht will assist the program by leveraging her fall and spring courses to develop new content for the tour program specifically focused on food and water resources. The goal is to create enough content so that tours can be developed on specific subjects. If someone is interested in learning more about a specific subject, a tour can still be catered to these interests. We will also be providing information to the existing tours guides from the visitor center and admissions office so they can have access to sustainability-related facts for their own tours.

The idea for the program came about when Kristen Cetin attended the TRECS conference in 2014 and heard a presentation from the University of North Texas (UNT) regarding a similar program. UT Austin decided to apply for a Green Fee grant to begin this initiative the following school year. Since, Texas Green Tours has evolved significantly. This upcoming year will be the second year of the program and the entire team is very excited of what there is to come. None of this would have been possible without the support from the Green Fee and others who have supported the program from the beginning. Dozens of faculty and staff agreed to meet with the team in order to help create
the database, attended and provided feedback on the tours early on, and have continuously supported the K-12 tours. In addition, the City of Austin’s Office of Sustainability has helped us fund buses so that every middle and high school interested in attending can do so at no cost. The passion those we have worked with have for their job and for making this university and city better is clearly visible.

Overall Texas Green Tours has been a great way to connect interested parties with information and to develop a pool of real life examples that can help inspire people to participate and do more, but also showcase these sustainability-focused initiatives to all types of publics, helping brand UT Austin as a sustainably minded school. As the program expands and more of the technology aspects of it become reality, we hope that all initiatives will be able to showcase their efforts in one place and allow people everywhere access to this information. With overwhelming support and ideas, the team plans to continue growing the program and bringing awareness to the community. If anyone is interested in assisting with the program, through being part of K-12 tours, providing us with information on your initiative, or taking a tour, please feel free to contact Mariana Silva at marianasilva@utexas.edu or visiting our website in the near future texasgreentours.com.