2019 Progress update on Goals and Targets identified in the campus Tree Care Plan, developed in 2016 for Shawnee State University

The following black bulleted text reflects the campus tree care plan developed and submitted for initial recognition of Shawnee State University as a Tree Campus USA in 2016. The Blue text below each bullet summarizes the progress made during 2019.

1. **Goals and Targets**
   - The perennial target for the SSU campus will be to increase the diversity of tree species on campus while also increasing the canopy coverage. A complete inventory of all campus trees began during 2011 with the ultimate goal of developing an interactive map that can be used for management and education. A 'dot map' and corresponding index was developed as part of an undergraduate research project by a student. Every other year (e.g. 2013, 2015, 2017) the biology Field Methods class conducts a random sample of campus trees and records vital statistics such as height and DBH. These data allow for monitoring of long-term campus tree growth and health. The current species list for all woody plants on campus is attached as an appendix at the end of the tree care plan.

   During fall of 2019, the Field Methods class once again conducted a sample inventory of the campus trees to update the GPS coordinates and associated database. Growth, condition, abnormalities, additions, and removals of trees were noted and recorded. As indicated in previous updates, a new numbering/ labelling system for all trees on campus was implemented during 2018 using durable, plastic tags. This will allow more reliable data to be collected and better communication regarding specific trees and their health/ care. Further, all data was digitized by the Geographic Information Systems class into ArcMap software to create a new GIS linked to the database. This system will allow more precision in monitoring of tree health and guide planning efforts in the future. During spring 2019, a student project collected, recorded, and incorporated soil (texture, nutrients, pH) data into the database. This information was integrated into the GIS and will aid in future planning and plantings.

   - SSU is expecting to release its next Campus Master Plan for the future of university planning in 2017 (last revision in 2008). The campus tree team is dedicated to promoting the campus tree plan to be incorporated as an integral part of this guiding document for the future of SSU, especially regarding tree maintenance, planting, removal, and protection. This has the potential to influence the landscape of SSU with regard to trees for decades.

   SSU continued implementing several aspects of the university's Strategic planning process, including the new Facilities Master Plan. The campus Tree Care Plan developed by the Tree Care Team was provided to leadership involved in this process. Further, as part of new administrative restructuring, a new University-wide committee for Facilities and Technology was formed, including two members (one faculty, one facilities/ administration) of the campus tree care committee.

   - During each offering, the Practical Horticulture class will actively promote health of campus trees through pruning efforts. This will serve as an authentic, experiential learning experience for SSU students to become interested in urban and landscape forestry and tree maintenance.

These practices will continue to be integrated into the curriculum of applied science courses at SSU.

In spring of 2019, 24 undergraduate students enrolled in the Practical Horticulture course. As a necessity to complete the course, students must participate in several service learning activities, including starting tree seedlings, tree planning, and tree pruning. The course counts as a Botany elective for the B.S. Biology degree, and under the General Education Program, which applies to majors across campus. This course is also included in the curriculum of the new Botany Minor and Certificate in Sustainable Landscape Management.

Additionally in spring 2019, 16 students in the GIS course continued to use the mapping of campus trees along with soil data as a class project. A link accessible web-app version of the tree map was created for use in planning and education.

In fall 2019, 17 students completed the dendrology course, where they contributed to tree planting efforts in conjunction with the city (see service learning), and collected seed to be used for next year's arbor day give-away trees (see below).

- A perennial goal of the SSU facilities department and tree care team is the reduction of non-native, invasive and/or noxious tree species from the campus grounds. As possible, invasive species which are already in place as landscape trees will be phased out and replaced with trees to encourage overall species and ecological diversity.
- In recent years, SSU has added many new properties to its holdings. Many of these properties are vacant or otherwise overgrown. Continued efforts will be made to further reduce invasive vegetation on campus owned lots (including, but not limited to, Amur Honeysuckle, Tree-of-heaven, and multiflora rose) through the use of herbicide treatment regimens and manual removal, as necessary. The campus tree inventory will be updated to reflect changes and additions on an on-going basis.
- To combat the impact of Emerald Ash Borer, efforts have been made and will make efforts to continue to treat (using Imidacloprid) the three mature White Ash trees on campus. Future treatments will include expanding the regular regime to include any smaller ashes, fringe trees, or lilacs (all Oleaceae) on campus.

Vigilance and monitoring of potently affected species has continued with treatment applied as necessary. Additionally, Clearwing Lilac Borer was identified as damaging several Fringe trees during the previous winter. As the standard systemic treatment used for EAB is known to be ineffective (and ill-advised for a flowering species due to pollinators), a degree day model was used to predict emergence of adult moths and serve as an action threshold for residual pyrethroid treatments to be applied to woody stems. The prediction was developed as part of a class project of the Applied Biostatistics course. The facilities crew have continued to utilize the prediction and execute well-timed treatments as needed.

- To mitigate the effects of storm water runoff, a settling basin has been constructed behind a unit of university owned housing and the soccer complex. Native vegetation (including wildflowers, shrubs, and trees) have been encouraged to grow in this area. Increased vegetation would have many benefits to reduce erosion and runoff of contaminants into the waterway.

Efforts to remove invasive plants from the settling basin and thin volunteer trees (e.g. sycamore) have increase. Planting of American Cane in part of the habitat to serve as living water bar was completed by student volunteers.

- A concerted effort will be made to add new species to the campus landscape which will augment the trees currently in place with respect to ecological, historical, and cultural significance.

During 2019, the following species were added to the campus tree list due to plantings: English Walnut (*Juglans regia*), Ninebark (*Physocarpus opulifolius*), American Cane (*Arundinaria gigantea*), PawPaw (*Asimina triloba*), Peach (*Prunus persica*, heirloom cultivars), Pecan (*Carya illinoiensis*), Buttonbush (Cephalanthus occidentalis, Butternut* (*Juglans cinerea*), and grafted Apple* (*Malus pumila*, c.v. McIntosh, Jonathan).

[*indicates new species to be added to campus tree inventory; seedlings are currently being held in newly constructed tree nursery before planting throughout campus].

The committee is currently exploring options to add the following species in 2020: Hackberry (*Celtus occidentalis*), Hoptree (*Ptelea trifoliata*), American Chestnut (*Castanea dentata*), Umbrella Pine (*Sciadopitys verticillata*), and Pitch Pine (*Pinus rigida*). The committee received an on-going financial commitment (donation from former University President, Dr. Jim Chapman), which will be utilized to support these efforts.

Seeds of the following species were collected by students in the fall 2019 Dendrology course: Post Oak (*Quercus stellata*), Southern Red Oak (*Quercus falcata*), Chestnut Oak (*Quercus montana*), Bur Oak (*Quercus macrocarpa*), Pecan (*Carya illinoiensis*), and American Yellowwood (*Cledastris kentuckea*). These seeds will be germinated and grown by the Horticulture class in spring 2020 to generate seedlings for the next Arbor Day celebration.

- We also hope to include additional interested parties as members of our campus tree care team during the following calendar year.

Student interest in campus tree initiatives has continued to increase with many students participating in the Tree campus event, Arbor Day celebration, and outreach events for the public regarding trees (i.e. Science in the Park, Evening of Science). Further, greater collaboration with the Portsmouth Tree City board has continued to increase. The two groups co-hosted the 2019 Community Arbor Day/ Earth day event and tree giveaway. In addition to growing and distributing the tree seedlings for the event, SSU students also planted the 2019 Arbor Day tree in Tracy Park. Near the close of the year, a number of trees and shrubs were donated to the City of Portsmouth and SSU by the Shade Tree Commission in nearby Chillicothe. Students in the dendrology course planted seven Leyland cypress along the newly created city dog park, which borders campus. A member of the SSU committee also became a Commissioner on the City Tree board, and student members of the SSU committee frequently attend city meetings. This work is poised to continue with great strength in 2020.

2019 SSU Campus Tree Advisory Team Members

Facilities:
o   Butch Kotcamp, Director of Facilities, SSU
o   Murray Smith, Grounds Manager/ Utility Worker, SSU
o   Terry Puckett, Utility Worker
o   Travis McKenzie, Utility Worker
o   Rob Gregory, Utility Worker

Faculty:
o   Dr. Logan Minter, Assistant Professor of Biology, SSU
o   Erik Larson, Professor of Geology

Students:
o   Tyler Sherwood, Student representative- SSU Natural Sciences (through spring 2019)
o   Erika Proffitt, Student representative, SSU Biology, Environmental (through spring 2019)
o   Jonathan Crews, Student representative, SSU Chemistry (beginning summer 2019)
o   Ava McCleese, Student representative, SSU Environmental Engineering (beginning summer 2019)

Community:
o   Chris Bedel, Director, Edge of Appalachia Preserve
o   Brad Bergefurd, Extension Educator, Scioto County /South Centers, Ohio State University

Tree City Celebration

Arbor Day/Earth Day event will be held in Tracy Park from noon until 3:00. Set up will begin between 10:30 - 11:00

Portsmouth Elementary Choir will open the event with the National Anthem and a couple of songs from their upcoming play.

Acting Mayor Johnson will read the Arbor Day Proclamation.

Backwoods BBQ will be set up and food can be purchased from their food truck.

The Drum Circle will be performing

Ronnie Rideout will also be performing

Inflatables will be available for the kids

Way Farms will be there with herbs, lettuce and some flowers.

This event is free to the public.

Thanks to the City of Portsmouth for their contributions towards the event and Southern Ohio Medical Center for their donation of a Dogwood Tree for Tracy Park.

Calendar Date:
Saturday, April 13, 2019 - 12:00pm to 3:00pm

Tree City Celebration

SATURDAY, APRIL 13, 2019
TRACY PARK-PORTSMOUTH, OHIO

Diana Litteral Ratliff
April 12 · 🌐

Come to Tracy Park tomorrow from noon until 3:00
for the annual Arbor Day/Earth Day Event. Lots of
vendors and local businesses, free entertainment,
bounce house and Gatti's will be there with their
food truck. Way Farms will be there with flowers an
herbs for a little preview of what's to come when th
Portsmouth Main Street Farmers Market opens ne
month. HomeLife will be collecting clothing, so if
you've done some spring cleaning and have clothi
you want to donate, they will be there to collect it.
Shawnee State students will be giving away trees
that they have grown from seed. Southern Ohio
Medical Center has donated a dogwood tree this
year and it will be planted tomorrow. So much to se
and do and it's going to be a beautiful day. Please
share this post, we want an even bigger crowd this
year.

👍 10   19 Sha

Write a comment...   😊 📷 GIF

SSU Students grew over 400 tree seedlings which were distributed on campus and at the community Arbor Day celebration for Free. They also assisted in planting the City Arbor Day Tree and conducting a tree climbing demonstration during the event.

Portsmouth Ohio
Where Southern Hospitality Begins

SEARCH

ABOUT US   DEPARTMENTS   BUSINESSES   RESIDENTS   SERVICES   CALENDAR   PAY ON-LINE   APPLICATIONS

Home » Arbor Day - Tree City Celebration

Arbor Day - Tree City Celebration

View   Repeats

The Portsmouth Shade Tree Commission along with Scioto County Soil and Water Conservation District will be holding its 3rd annual Arbor Day celebration. The Portsmouth Elementary choir will begin the day with the National Anthem along with some songs from their current play. Steve Free and The Drum Circle will also be performing. Lots of vendors, inflatables for the kids, and lots of tree give aways. Shawnee State University students have grown their trees from seedlings and will be handing those out to anyone that would like a tree. Some of our Farmer's Market vendors will also be there.

Come out for an afternoon of fun!

Calendar Date:
Saturday, April 21, 2018 - 12:00pm to 3:00pm
Location:
Tracy Park
911 Gay Street
Portsmouth, OH 45662
United States

MOST VIEWS

Christmas Day Garbage Pick Up

Sanitation

Records Bureau

Public Utilities

2018 City Manager's Agenda's, Reports, Minutes and Audio

CITY LINKS

Income Tax Division

Request a Service

City Maps

Contact Us

SSU students grew, maintained, and passed out over 400 tree seedlings in spring 2019, between the community Arbor Day celebration and campus events.

Shawnee State University
Biol 2253-01: Practical Horticulture
Spring 2018, MW 2:00-4:50 pm

Instructor:	Logan Minter, Ph.D.
	Mailbox: Massie 3rd Floor (Dept. office)
	Email: lminter@shawnee.edu
	Phone: (740)351-3486
Office Hours:	MW 11 am-noon, TR 10-11am (Massie B28- in Mas 0-30)
Course:	Biol 2253-01
Credit Hours:	4 (2 lec. 4 lab), *General Education Program Course*
Department Secretary:	Sharon Messer, (740) 351-3456

Course Description: An introduction to the science of practical horticulture with emphasis on useful skills and techniques related to plant propagation, selection of suitable ornamental plants for the habitat at-hand, planting and maintenance of plants in home, greenhouse and the landscape, fundamentals of landscape design, and basics of insect and disease control.

Learning Objectives of the Course: In addition to serving as an Botany elective course for the B.S. in Biology the course meets scientific reasoning requirements as a GEP lab course via learning activities that require critical analysis of diverse information, applied learning in selected areas of horticulture, and development of a meaningful presentation and learning activity for classmates and instructor. At the conclusion of this course each student should be able to:

- Become familiar with the several specialized fields of horticulture and be conversant with information and skills that a person working in each of those fields must have.
- Learn to recognize and identify the structural and functional components of horticultural plants and distinguish among the several growth forms of these species.
- Identify major groups/ types of select horticultural plants and describe basic requirements and methods for their culture, propagation, maintenance and marketing.
- Learn and use commonly accepted techniques and approaches to: growing horticultural plants and trees from seed, asexual propagation, growing of greenhouse and bedding plants, maintenance of selected indoor and outdoor horticultural species, landscape planning and installation of landscape species, and pruning of woody ornamentals.
- Gain comprehension of the basics of plant pathology and pest management as these relate to selected areas of horticulture and arboriculture.
- Develop and direct a class learning activity on a selected (instructor approved) topic drawn from one of the horticultural specialties (this to include an introductory presentation that uses at least one form of visual support.
- Demonstrate efficient use of scientific and technical equipment (i.e., microscopes, greenhouse supplies, pruning and spray equipment)
- Practice and demonstrate improved critical thinking skills relative to botanical study

Instructional Materials:
Required Text: There is no formal test to be purchased. Course will make use of multiple free and open access resources provided through the cooperative extension services and other trade organizations.
Field supplies:
- Hand lens (e.g. 10x Loupe) and small pocket knife (useful)
- A small field notebook to record observations
- Clothing/gloves and shoes suitable for field work

Tree Planting, Care, and Maintenance

Each spring, students in the Practical Horticulture course participate I several service learning activities. In 2019, these included collecting and analyzing soil samples associated with the SSU campus tree inventory (the data was subsequently used by the GIS course as a project), growing trees from seed and grafts to be given away during the community Arbor Day celebration and on campus, and pruning trees on campus in coordination with the facilities crew,.
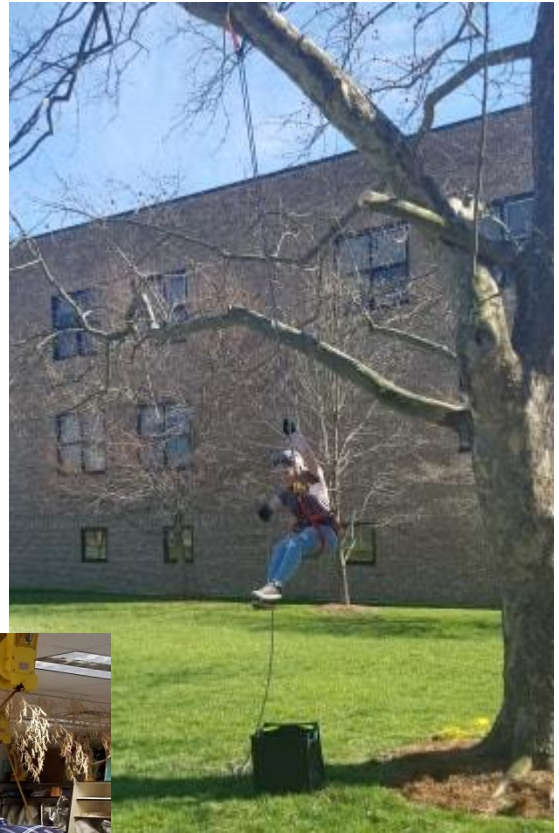
Putting skills to use Internationally

During early summer 2019, several students who had previously completed the Practical Horticulture course travelled to Costa Rica for a travel course. While there, 5 of these students volunteered in a local village to teach grafting skills to community members involved with a Conservation Club for youth. Their hope is to pass on the skills to local children as a means to teach the scientific method and the importance of trees, forests, and sustanability at the local and global level.

Dept Natural Sciences Shawnee State University added 7 new photos to the album: BIOL3100-Field Studies Costa Rica 2019.
May 15 ·

+4

Dept Natural Sciences Shawnee State University
· May 15 · Edited ·

Students who have completed Practical Horticultu... at SSU went to the local village yesterday to help teach resident station staff various grafting and air layering techniques to use on citrus trees. — with Johnathan Charles Blount and Haley Bigham.

Dept Natural Sciences Shawnee State University
Page Liked · May 15 · Edited ·

Their plan is to pass on the knowledge to youth members of the conservation club as a way to tea... the scientific method.

2

👍 Like   💬 Comment   ↪ Share

Write a comment...

GIS Update of Campus Tree Inventory

During spring 2018 and 2019, the Geographic Information Systems (GIS) class updated the campus tree inventory map by transferring the data into ArcMap GIS software. The management implications of using such a system was presented during the 2018 SE Ohio Tree City/ Tree Campus recognition event by Dr. Logan Minter (Dr. Erik Larson and Dr. Bob Deal, co-authors).
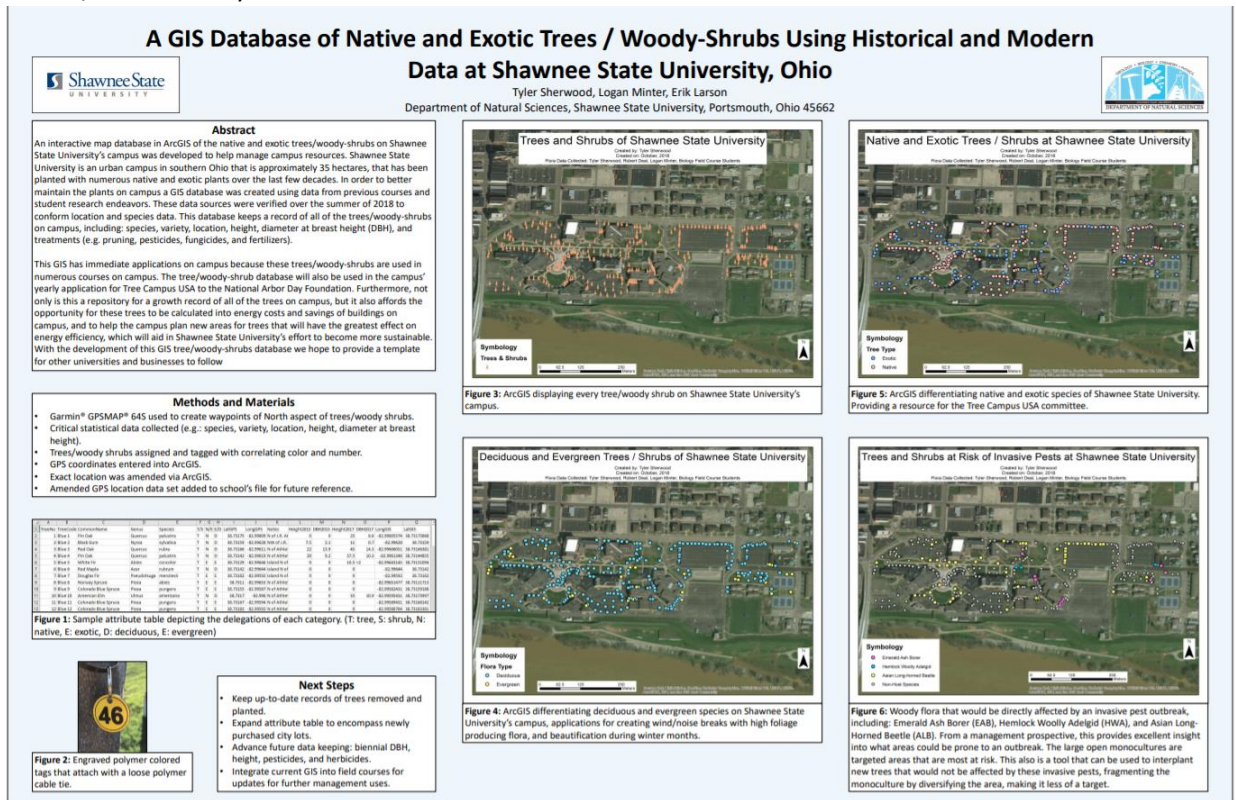
Poster (above) showing utility of new GIS database system of campus tree inventory. This poster was presented at the national meeting of the Geological Society of America by SSU Campus Tree Committee student member, Tyler Sherwood. As part of Tyler's undergraduate research project, he ground-truthed all GPS coordinates for all trees on campus and tagged each tree with durable, plastic identification tags.

Plans to add further data to the GIS are in development for 2020. The system will also be revised to allow easier access to the facilities crew to record any management information directly into the system.

GIS Update of Campus Tree Inventory

During spring 2019, the Geographic Information Systems (GIS) class updated the campus tree inventory map by transferring soil data collected by the horticulture class into ArcMap GIS software. Having a detailed map of soils overlaid with the tree inventory will provide a useful resource in planning g future tree planting efforts.
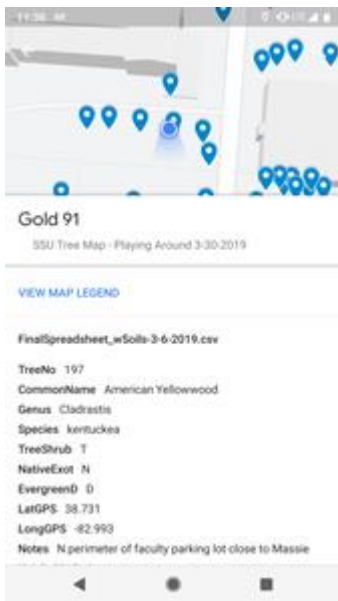
GIS Update of Campus Tree Inventory

During Fall 2019, the Field Methods course, once again, conducted a sampling survey of campus trees to record growth and health characteristics. This year, the information was integrated into the newly developed web-app based version of the campus tree inventory map. This date is now accessible via the following weblink:
https://www.google.com/maps/d/viewer?mid=1mecfX0qFqVtFB0wqgb4sj-jBLPN1-Apg&ll=38.73146657094674%2C-82.9926506957703&z=16

Currently, this inventory is only accessible via this direct link. In early 2020, access is planned to be included on the SSU Department of Natural Sciences webpage.

While viewing the link, students and campus visitors can learn more about trees in real-time, as they walk through campus.

GIS Update of Campus Tree Inventory

In addition to the full inventory now being made available to students, an initial tree trail was developed by SSU faculty using student generated data about significant Appalachian trees on SSU's campus. Prior to public release, students in the Dendrology course assisted in testing the accuracy of the app, and suggesting content to be included.

This web-map was presented to the (Re)covering Appalachia Digital Conference in the fall of 2019. This web-map includes tree locations, cultural and regional significance of the trees, and their natural history along with images of the trees. A QR code to allow access to the current Appalachian Tree Trail at SSU can be seen below.
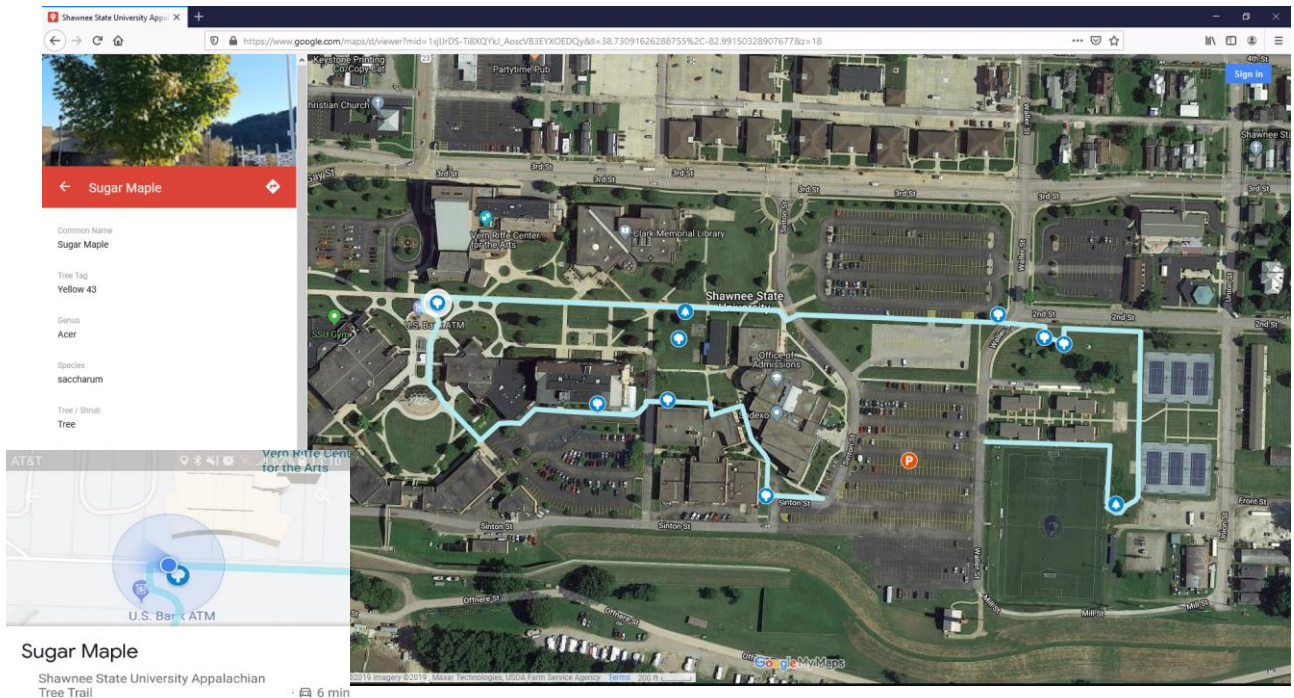
Members of the committee have also been approached by community members to expand the use of the technology to historically and otherwise significant trees throughout the city (particularly in the Greenlawn Cemetery), ultimately building a city-wide, interpretive tree trail accessible through smartphone technology. Efforts to solicit grant funding to expand this project into the community are ongoing.

Tree Planting in the Community

Near the close of Fall semester, students in the dendrology course got a hands'-on taste of urban forestry by helping plant 9 trees along the boundary of campus to provide a shade and screen along the newly constructed dog park. The same students have also collected several thousand tree seeds to be planted next spring in preparation for Arbor Day celebrations in the community.