Tree Campus Higher Education 2023 Application





SUBMITTED: DECEMBER 2023

Lewis-Clark State College Arboretum Committee



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Introduction

Lewis–Clark State College (LCSC or LC State) is located in Lewiston, Idaho. Founded in 1893, Lewis-Clark State College is a public undergraduate college with a three-part mission of academic programs, career & technical education programs, and community programs. One of the top public comprehensive four-year colleges in the West, with a beautiful campus, small classes, and superb faculty, LCSC is often described as a public institution with the feel and quality of a private college.



Lewiston is the county seat of Nez Perce County, Idaho, in the state's north central region. Lewiston is located at the confluence of the Snake River and Clearwater River, and it is the farthest inland seaport from the west coast. The City of Lewiston became a Tree City USA in 1988, and it maintains that designation today.



Aerial shot of the LCSC Campus, nestled in the Lewiston community, with the Snake River running along its western edge.

Tree Campus Requirements

In alignment with the goals of the LC State Arboretum Committee, starting in the Fiscal Year 2018-2019, Lewis-Clark State College seeks to complete the recognition required for Tree Campus Higher Education (formerly Tree Campus USA). The Tree Campus Higher Education requirements are:

- Establish a Tree Advisory Committee
- 2. Develop a Tree Care Plan
- 3. Verification of dedicated annual expenditures on the Campus Tree Plan
- 4. Involvement in an Arbor Day Observance
- 5. Institution of a Service-Learning Project aimed at engaging the student body

Standard 1 – Establish a Tree Advisory Committee

Tree Advisory Committee (aka Arboretum Committee)

Creation of the LC State Arboretum Committee was approved by the President's Council in 2008, and then had its inaugural meeting in 2010. In 2016 it was first proposed to seek a Tree Campus USA designation. At that time, it was determined that the role of the Arboretum Committee would also act as the "Tree Advisory Committee" per the Arbor Day requirements. In this document, Arboretum Committee and Tree Advisory Committee are used interchangeably.



While responsibility for campus trees is assigned to the LCSC Physical Plant,

the Arboretum Committee assists by providing guidance for future planning, input to a comprehensive campus tree plan, approval for removal of diseased or damaged trees, education of the campus community about the benefits of trees, and development of a community connection related to our campus and community trees.

Current Committee Members

Name	Staff, Faculty, Student	Job Title
	or Community Member	
Carrie Kyser, Chair	Staff	Instructional Designer (Landscape Architect)
Tim Barker	Community	Director, Lewiston Parks and Recreation
Matt Belanger	Student	ASLCSC Representative (fall 2023)
Wayne Bolon	Staff	Landscape Foreman, Physical Plant
Don Brigham	Community	Landscape Architect
Julie Crea	Staff	Vice President for Finance & Administration
Rhett Diessner	Community	Retired Professor of Psychology
Celeste Ellis	Faculty	Nursing and Health Sciences Instructor
Redgy Erb	Staff	Director, Physical Plant
Jenni Light	Faculty	Professor of Engineering
Angie McClain	Staff	Administrative Assistant, Physical Plant
Trent Morgan	Faculty	Nursing and Health Sciences Instructor
Elisabeth Murillo	Staff	Administrative Assistant, Teacher Education and Math
Ben Stowell	Community	GIS Specialist

2023 Meeting Schedule

The committee had its inaugural meeting in 2010. In 2023, meeting dates for the full committee were:

- March 2, 2023; 1:00pm to 2:30pm
- October 5, 2023; 8:00am to 9:30am

Additional sub-committee meetings were held on topics such as the tree identification tags, Arbor Day observance event, tree inventory project, and campus master plan.

Duties of the Committee

- Classifying, cataloguing, and placarding of trees/plants on campus
- Developing educational opportunities/activities for students/community
- Planning for maintenance, removal (as required), and replacement of trees/shrubs
- Planning for botanical exhibits on campus
- Organizing campus or community support/fund-raising
- Organizing an Arbor Day celebration each year

Terms of Members

The committee members will serve for a minimum of one year with an option for renewing the following year. Committee members are expected to actively participate and contribute in developing policy and guidelines for the tree care plan. No set number of committee members is required; however, the committee must always include a representative from the following groups:

- LCSC Student
- LCSC Faculty Member
- LCSC Physical Plant staff
- Community (preferably city forester, municipal arborist, or landscape architect)

When new members for the committee need to be recruited, the Arboretum Committee Chair is responsible for nominating new members.

Standard 2 – Campus Tree Care Plan

The LCSC Tree Care Plan

In 2015 LCSC initiated development of a tree care plan. The following plan is currently in place and was approved by the LCSC Physical Plant Director and the Arboretum Committee in 2019.

Purpose

The purpose of the Lewis-Clark State College Tree Care Plan is to define protocols and give guidance and direction as to the best practices for any developments affecting trees on campus. This plan will be used by the Physical Plant and the Arboretum Planning Committee in executing any of the landscape projects on campus properties.

The Tree Care Plan is meant to formalize the planning efforts to develop and maintain a diverse assemblage of temperate tree species. The plan is also a communication tool that facilitates the coordination between the campus departments and community organizations.

Responsible Authority and Role of Tree Advisory Committee

Implementing of the Tree Care Plan will be split between Lewis Clark State College Physical Plant staff and the Arboretum Committee. Physical Plant staff will remove, replace, and maintain trees at the recommendation of the Arboretum Committee. The Arboretum Committee's role as the Tree Advisory Committee is described in Standard 1.

Communication Strategy

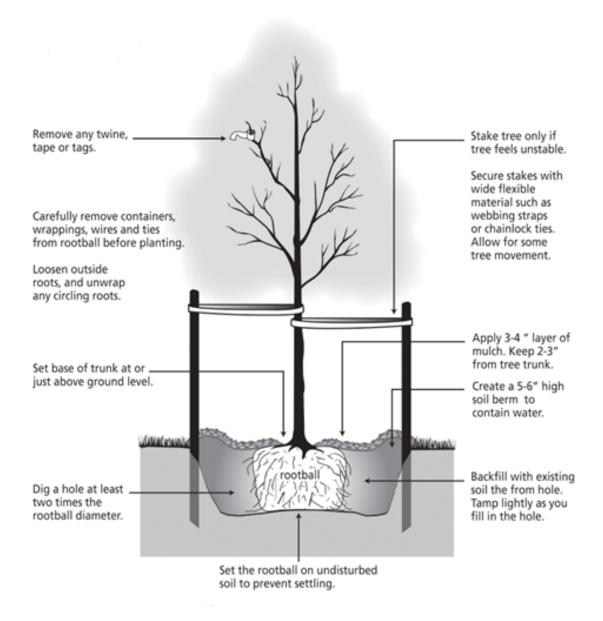
This plan is provided to all Physical Plant employees who work on the campus grounds crew, as well as contractors, in order to ensure the adequate care and preservation of the campus trees particularly during new construction and building renovations. This plan shall be housed under the Administrative Services office and made public via the Arboretum Committee website (Full URL: https://www.lcsc.edu/administrative-services/arboretum-committee). The Tree Care Plan will be included and recognized in future master plans for the campus. The Arboretum Committee will work in coordination with the LCSC Communications office to provide announcements to the LCSC staff, students, and faculty, as well as the surrounding communities when tree-related events are scheduled, such as Arbor Day observances.

Tree Care and Tree Planting Policies

Proper planting is essential in maintaining health and longevity of the trees on campus. Trees must be selected in accordance with the recommended planting lists and in relation to site conditions and will be installed in the suitable locations. New planting is beneficial in the case of excessive specimen loss in other areas on campus, as well as for community education purposes. When information needed for tree care and tree planting are not found in this document, reference will be made to the ANSI A300 Standards. ANSI is the American National Standards Institute, with ANSI A300 being the tree care industry standard of care. You can access the ANSI A300 Standards on the Tree Care Industry Association website (Full URL: https://www.tcia.org/TCIA/BUSINESS/ANSI A300 Standards /TCIA/BUSINESS/A300 Standards/A300 Standards.aspx).

Tree Planting

Trees will be planted in spring or autumn according to ANSI A300 and in reference to the diagram below. Guying, staking, wrapping, pruning, mulching, fertilizing, watering and other ongoing maintenance of trees and shrubs will be accomplished as directed in the technical sections of these Standards. Newly planted trees will receive adequate water weekly during the entire first growing season right up until dormancy in the fall, by irrigation or placement of ooze bag or hand watering. Staking and wrapping of trees will not occur unless determined necessary by a member of the Physical Plant grounds crew. All new trees planted will be added to the tree inventory database and marked with tree identification information when appropriate.



Tree Selection

The key goal of tree selection is to select trees that are hardy to our region, maintain biodiversity, and add aesthetics to the LCSC campus. Trees are selected based on site conditions and in accordance with the recommended replacement species listed in Appendix B. All trees will be purchased from local, reputable nurseries and be inspected for quality upon delivery, rejecting any defective stock. If a specimen from the list cannot be located, Physical Plant staff will consult a Landscape Architect on the Arboretum Committee for guidance on an alternative.

Tree Maintenance

Physical Plant staff and seasonal employees will clean up campus landscaping by removing fallen debris and conducting minor pruning. All arboricultural practices on LCSC Campus will adhere to the standards set forth by the ANSI A300 guidelines.

Campus trees are maintained by a Physical Plant crew or a contracted tree service. Trees are assessed annually for signs of required maintenance such as pruning, fertilizing, or pest treatment. Trees are generally pruned on a three to four-year cycle with damaged or pre-determined hazard trees taking priority. The Physical Plant crew uses ANSI A 300 (Part 2) and the best management practices on tree and shrub fertilization (International Society of Arboriculture, ISA) as guides for fertilizing trees on campus. When pests are suspected, an arborist is consulted to determine the need for treatment and/or removal.

Tree Removal

Tree removal will occur under the following circumstances:

- Insect and/or disease infestations are so advanced, that recovery is unlikely or impossible.
- Defects in tree structure indicate a higher level of risk than the Arboretum Planning Committee is willing to accept.
- Damage from people, wildlife, or weather events necessitate removal, emergency or otherwise
- Construction or renovation on campus necessitates removal (review <u>Protection and Preservation</u> section)

Stump grinding will always occur after removal of a major tree to facilitate the replacement of that tree.

Management in case of Catastrophic Event

In the event of severe weather conditions (i.e., winds, blizzards) fallen trees and branches will be removed by Physical Plant staff or an outside tree removal company. Roads and streets shall be cleared first, then access to critical buildings. During the planting season following a catastrophic weather event, the Arboretum Committee and Physical Plant will coordinate replacement and/or treatment of damaged trees. Refer to the information in Tree Damage Assessment for more information on assessment of trees damaged in a catastrophic event.

Tree Damage Assessment

Assessment of low profile trees is performed via the Arboretum Committee or LCSC Physical Plant grounds staff. Higher profile trees are assessed by an outside consultant (such as a Certified Arborist). Results from the evaluation determines whether the tree should be removed, pruned, or receive treatment such as fertilization or insect/disease control. Assessment of trees will be conducted annually as a prevention strategy. Removed trees are updated on the tree inventory list.

Whenever it is determined that violation of this procedure has occurred, the Physical Plant representative or designee from Arboretum Committee shall immediately issue written and oral notice to the person or company or department in violation, identifying the nature and location of the violation and specifying that remedial action is necessary to bring the violation into compliance.

Protection and Preservation

Prior to construction, trees of high landscape or educational value will be identified for protection and preservation. Tree protection zones shall be established and maintained for all trees to be preserved in a construction site. A consulting arborist or landscape architect will determine the best strategy for placing a tree protection zone around the tree so that it may survive the construction period. During construction, all trees that must be removed to make room for a new building will be replaced by a similar tree elsewhere on campus chosen from the tree selection guide. Trees in poor health or of an undesirable species near the construction site will also be selected for removal and replacement.

Prohibited Practices

To best protect and maintain the health of trees on campus, the following items are prohibited practices:

- Topping, heading cuts, and hat-racking of trees is strictly prohibited except where necessary to provide clearance for utility lines.
- Bicycles, mopeds, and other wheeled vehicles shall not be parked and locked to young trees under any circumstance.
- Removing plant material, damaging stems, or excavating near trees is prohibited unless conducted or supervised by trained staff for specific purposes.
- Destroying trees by any means is also prohibited.
- Trees cannot be planted for dedication without pre-approval of the Arboretum Committee and the LCSC Physical Plant. All commemorative trees must go through the <u>Commemorative Tree Policy</u> set forth by the Arboretum Committee (Full URL: https://www.lcsc.edu/administrativeservices/arboretum-committee/commemorative-trees)

Goals and Targets

The campus will plant species with varying size and lifespan. Future trees planted on campus need to be less susceptible to disease and storm damage. To achieve this goal, a tree inventory is continually being developed and maintained in order to evaluate existing species and determine viable replacement trees.

Tree Inventory

The LC State Arboretum Committee and LCSC Physical Plant staff shall maintain an inventory of trees on the campus and other grounds owned by the college. The purpose of the inventory is to keep track of the diversity and health of trees that are currently part of the campus. The inventory aids in the maintenance of trees on campus and helps inform decisions about future species for planting. The inventory also provides students with the opportunity to learn real-world applications of GIS technology through the collection and upkeep of data, data analysis, and report writing.

LC State Arboretum Committee in coordination with LCSC students will maintain and update the campus tree inventory on an annual basis. Current data has been collected using the GIS Collector App and stored in the GIS geodatabase.

Data collected includes:

- Tree Number
- Tree Species
- Height
- Diameter at Breast Height
- Tree Condition based on International Society of Arboriculture Parameters
- Year Planted (if known)
- Comments (e.g. recommended work)

The LCSC Tree Inventory is available for viewing by the public. (Full URL:

https://lcsc.maps.arcgis.com/apps/instant/basic/index.html?appid=7cf493fff05e48fda1406ad19c6ba8b8)

Standard 3 – Dedicated Expenses to the Tree Care Program

The funding for the Arboretum Committee comes from an account with the LCSC Foundation as well as the Physical Plant budget. These combined sources create the budget that is allocated to the tree care program. With a full-time enrollment of 2625 students for Fall 2022 that would mean a recommended minimum \$7875 be allocated. To build and maintain our trees on campus, LCSC has exceeded that recommendation.

LCSC Foundation Account for the Arboretum Project

The LC State Foundation account, created for an arboretum project, was started in December 2014. The funds in this account were provided by a donor. All funds are allocated for the upkeep, preservation, and growth of the campus arboretum. Since its inception in 2014, that account has disbursed \$41052.04 for the development and maintenance of the campus trees. At the end of the year of 2023, our balance is \$51,947.96.

	Deposits	Disbursement	Total
FY 2014-2015			
14-Dec	\$30,000.00		\$30,000.00
15-Jan	\$35,000.00		\$65,000.00
15-Jun		\$11,994.26	\$53,005.74
FY 2015-2016			
	\$0.00	\$0.00	\$53,005.74
FY 2016-2017			
16-Aug	\$28,000.00		\$81,005.74
FY 2018-2019			
18-Mar		\$16,271.00	\$64,734.74
Year 2020			
14-Jul		\$4,000.00	\$60,734.74
Year 2021			
31-Mar		\$920.00	\$59,814.74
4-May		\$712.93	\$59,101.81
30-Jun		\$5,000.00	\$54,101.81
Year 2022			
22-Dec		0	\$54,101.81
Year 2023			
January		\$2,153.85	\$51,947.96

LCSC Physical Plant Budget

The LCSC Physical Plant is responsible for the grounds maintenance and landscape on the campus. The estimated expenses from their annual budget allocated to the tree care plan are as follows:

Labor, Equipment, and Maintenance	\$ 1500 to \$2000 per year
Tree Removal	\$ 2500 to \$5000 per year

The annual landscape maintenance budget for Physical Plant (including equipment, salaries, irrigation, etc.) is a minimum of \$250,000 and comes from appropriated funds.

2023 Disruptions to Tree Replacement

Other volunteer support comes from our student organization, the Associated Students of Lewis-Clark State College (ASLCSC), which is comprised of elected students who represent the student body, interacting with college administrators and

On January 18, 2023, the City of Lewiston experienced a city water issue when one of their reservoirs that provides water to the city, including Lewis-Clark State College, suffered a catastrophic failure. Information on the event can be seen in the article from KREM news (Full URL:

https://www.krem.com/article/news/local/lewiston-reservoir-failure-investigation/293-5bb6e694-55c0-4b3b-a8cd-3153e5feb464).

Due to the City of Lewiston not having access to use of that reservoir, they were forced to put irrigation restrictions on the entire area that previously used that water source. Starting May 2, everyone located on the City of Lewiston water system has required to move to hand-water only for outdoor irrigation. This watering restriction greatly affected Lewis-Clark State College. Instead of moving forward with planting replacement trees that were slated for Spring 2023, we decided to postpone planting of most trees.

We did proceed with planting two trees that were part of our commemorative tree program, including the tree planted for the Arbor Day celebration. Our grounds crew then hand-watered those two trees throughout the summer.

The water restriction was lifted as of July 31, 2023, and at that time campus was able to resume using our irrigation systems. The Arboretum Committee advised to halt any tree plantings for the remainder of 2023 so that our grounds maintenance staff could focus on reestablishing basic systems and landscaping.

As of December 2023, the Arboretum Committee plans to be able to replace all trees that were removed since end of 2022 in the Spring of 2024.

Volunteer Time

The <u>Arboretum Committee</u> is made up of volunteers. The community members on the committee volunteer their time, as well as the faculty and students. The LCSC staff members on the committee complete their duties as part of their general job functions. Approximately 20 hours of volunteer time and labor come from this group each year.

Other volunteer support comes from our student organization, the Associated Students of Lewis-Clark State College (ASLCSC), which is comprised of elected students who represent the student body, interacting with college administrators and faculty to ensure that students enjoy a quality education experience. ASLCSC has partnered with the Arboretum Committee on the planning and execution of Arbor Day events in 2018 and 2019. ASLCSC also played a big part in the 2023 Arbor Day event. You can read more about their involvement in Standard 4 – Annual Arbor Day Observance Event.



Photo of the 2018-2019 school year members of the Associated Students of Lewis-Clark State College (ASLCSC). You can <u>learn more about ASLCSC on their webpage</u> (Full URL: http://www.lcsc.edu/aslcsc/)

In 2022, the Arboretum Committee partnered with the Psychology Club to put on the 2022 Arbor Day celebration. The Psychology Club put in approximately 5 volunteer hours coordinating the plaque for the tree, setup for the event, and execution of the event. The Psychology Club is a student organization that provides information to undergraduates about important research or internship opportunities within the program and to explain the roadmap to achieving the major. The club has a volunteering function to help students become more involved in the community and promote psychology-related programs on campus. They also provide a community of like-minded students and faculty that share a common interest in psychology.

Standard 4 – Annual Arbor Day Observance Event

2023 Arbor Day Celebration

The Arbor Day Celebration took place on May 23 at 10 a.m. near the entrance to the college baseball stadium. The event was sponsored by the LC State Arboretum Committee and the City of Lewiston (Lewiston is a Tree City) in partnership with the Associated Students of Lewis-Clark State College (ASLCSC).

The event featured the planting of a commemorative tree to celebrate long time LCSC employee, David Walker. The ASLCSC President approached the Arboretum Committee in January 2023 about planting a tree to celebrate the support David shows for all the students at the college. David truly is the biggest Warrior fan. The celebration was held in May rather than on Arbor Day so that the event could be the kick-off to the NAIA College World Series events.

The NAIA College World Series brings teams from across the country to Lewiston for baseball. David's tree was planted directly across from the entrance to the Baseball stadium. The

Tree Planting

Celebration

Celebration

Commemorate the continued support of our LC State students and the community given by

David Walker

23 May 2023

10am LC State Campus

Along 6th Street

Between 9th & 10th Ave

The tree is presented by the Associated Students of Lewis-Clark State College (ASLCSC).

The event is a 2023 Arbor Day celebration and will include the LC State Arboretum and the City of Lewiston being recognized by the Arbor Day Foundation.

LCSC wetcomes participants with disabilities for questions, or to request disability related accommodation, please contact dispendies or 208 792 2556 selections week prior to the event.

Flier for the Arbor Day Celebration. The event was cohosted by Lewis-Clark State College and the City of Lewiston. Obtaining and planting the tree was a partnership between the Arboretum

LCSC Welding instructor created a one-of-a-kind plaque stand from a baseball bat donated by the LCSC Athletics department. The local TV station, KLEW, covered the event and posted a video on Community Hero: David Walker (Full URL: https://klewtv.com/news/local/klew-community-hero-david-walker?fbclid=IwAR3v3HrbeluJiYMu56fyWbn2m33z7CoSLiGflEyInA3u-Iqt_D8oi0R-KDc)

The commemorative tree planted was a *Cornus florida*, commonly known as a Flowering Dogwood. The Flowering Dogwood is David Walker's favorite tree because of its beautiful pink blooms each spring. Each year, Lewis-Clark State College hosts the Dogwood Festival which is a community wide event that includes an art fair, quilt show, car show, community fun run, and much more. David is a regular visitor and volunteer at all the community events for the Dogwood Festival.



David Walker stands by his commemorative tree.



LCSC President, Dr. Pemberton, and Arboretum Committee Chair, Carrie Kyser, display the Arbor Day plaque by the 2023 Arbor Day celebration tree.

Previous Arbor Day Events

2022 Arbor Day Celebration

The Arbor Day Celebration took place on April 29, 2022, at 10 a.m. near Meriwether Lewis Hall and the gazebo in the center of campus. The event was sponsored by the LC State Arboretum Committee and the City of Lewiston (Lewiston is a Tree City).

The event featured the planting of a commemorative tree to celebrate the 34 years of service to the college by retired professor Dr. Rhett Diessner. The tree was donated by the Arboretum Committee and the Psychology Club. Dr. Diessner, who retired in Spring 2021, taught a variety of classes at LC State, including psychology. He won several honors through the years, including being the first professor at LC State to be honored as the Carnegie Foundation for Advancement of Teaching's Idaho Professor of the Year in 2005. He received the college's Foundation Award in 2020 for excellence in teaching and scholarly activities. He received the President's Award for Excellence in Diversity and Cross-Cultural Understanding and was honored by both professional and student organizations for excellence in teaching. In 2016, he received the Warrior Service Award for his outstanding service and dedication to the college. Dr. Diessner has been a longtime member of the Arboretum Committee and continues to serve on the committee as a community member.

The commemorative tree planted was a *Parrotia persica*, commonly known as a Persian Ironwood. Persian ironwoods reward those who choose to grow it, offering interest and beauty in every season. The mature bark is reminiscent of the sycamore trees that line our campus,

ARBOR
DAY

CELEBRATION

Friday, April 29th
10:00am

Lewis Clark State College
East of LCSC Meriverbur Lewis Hall (MLH), between MLH and the Gazebo

A reaw all service of Dr. Robet Diseasor at Lewis Clark State College.
The tree was donated by the LC State Psychology Clab and the LC State Psycholo

Flier for the Arbor Day Celebration. The event was cohosted by Lewis-Clark State College and the City of Lewiston. Obtaining and planting the tree was a partnership between the Arboretum Committee and the Psychology Club.

it has luscious summer leaves, and brilliant fall color. It is a small, adaptable tree, and will grow beautifully in the heart of our campus. It is a favorite tree of Dr. Diessner's, and an excellent new specimen to the Arboretum.

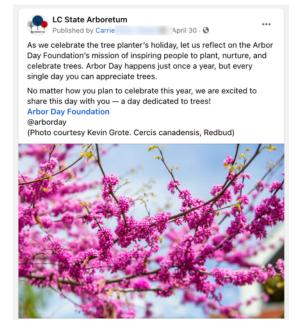


Dr. Rhett Diessner joyfully plants the commemorative tree with the help of Wayne Bolon, the LCSC Landscape Foreman.

2021 Arbor Day Observance

Due to the COVID-19 Pandemic, LC State Arboretum Committee chose to do a virtual celebration for Arbor Day in 2021. On March 31st, the LC State Arboretum launched a Facebook page to be able to connect with the community.

The Facebook page provided viewers with details and history of our Arboretum throughout the month of April. The page was used to share the event that was held by the City of Lewiston (Tree City USA) for Arbor Day. The city's celebration included the planting of a commemorative tree in honor of Bill Malcolm who served as the Chair of the Urban Forestry and Cemetery Commission for the city of Lewiston, as well as a member of the LC State Arboretum Committee. The post that went up on April 30th, 2021, to promote Arbor Day reached 260 people.



Screen capture of Arbor Day post by the LC State Arboretum. The post reached 260 people.

In addition to the Facebook page being used during the Arbor Day celebration, throughout the summer semester posts went up every Friday. These posts were part of "Fun Fact

Friday" and provided information on specific trees or species in the LC State Arboretum.

2020 Arbor Day

Due to the COVID-19 Pandemic, LCSC did not participate in a 2020 Arbor Day Observance.

2019 Arbor Day - Presidents' Row Addition

A tree planting ceremony to honor Lewis-Clark State College President Dr. Cynthia Pemberton, as part of Presidents' Row, was held on Arbor Day, April 26, 2019 at 2:30 p.m. near the intersection of Seventh Avenue and Fifth Street on the LCSC campus. The ceremony was free and open to the public. With help from the college's Foundation office, Arboretum Committee, Physical Plant office, and the Associated Students of LCSC, Presidents' Row now consists of 16 trees with the addition of the Purple Robe Black Locust tree that was planted to honor President Pemberton.

Please review the <u>full article about the Arbor Day event</u> on the LCSC News page (Full URL: https://www.lcsc.edu/news/2019/03/25/president-s-row-tree-planting-on-april-26-will-honor-lcsc-s-pemberton)

2018 Arbor Day - Presidents' Row Inaugural Planting

As part of Lewis-Clark State College's 125th anniversary celebration, the college planted a row of new trees along Seventh Avenue to honor past, current, and future presidents of the college. This is the legacy project for this year by the Associated Students of LCSC, which is comprised of elected student officers who represent the student body.

The first tree, in honor of LCSC's first President George Knepper, was planted on Seventh Avenue just east of the entrance to the Fourth Street parking lot. There were 13 trees planted between the entrance to the parking lot and the Fifth Street entrance to campus. The final two president trees were planted on the east side of the Fifth Street



The 2018 ASLCSC President, AJ Baron, and LCSC President Tony Fernandez shake hands after planting the tree to commemorate Dr. Fernandez's time as LCSC President.

entrance to campus near where the bus stop location is. Those two trees were planted during a special ceremony on Arbor Day, April 27, 2018. The public was invited to attend the ceremony.

View the <u>full article about the LCSC Presidents' Row initial planting</u> event on the LCSC News page (Full URL: https://www.lcsc.edu/news/2018/03/13/lcsc-students-to-celebrate-college-roots)

Standard 5 – Service-Learning Projects

2023 Service-Learning Projects

Health and Wellness Fair - Tree Walk Reduces Stress

The Service-Learning project for 2023 built on the project from 2022. The project connected the students' classroom learning to a real-world application in our campus arboretum. The Lewis-Clark State College campus holds a health and wellness fair each Spring semester. A small group of first-year and second-year Nursing Program students collaborated with appreciation of beauty researcher and Professor Emeritus of Psychology at Lewis-Clark State College, Dr. Rhett Diessner. Dr. Diessner is also a member of our Arboretum Committee. Building on the work the group did in 2022, the students were able to develop a "brief guided mindful walk around campus," which focused on the beauty of trees to reduce student stress.

This project helped the students to collaborate with an interprofessional expert and then allowed the students the opportunity to disseminate the information to peers across campus. Deliverables were designed in the form of a tri-fold poster board that highlighted the benefits of mindfulness— increases working memory, elevates brain function and reduces anxiety and depression. A true connection between mindfulness, stress reduction, peer involvement and tree appreciation became evident at the conclusion of the project.

Past Service-Learning Projects

Health and Wellness Fair – "Eleven Minute Campus Beautiful Tree Walk Reduces Stress"

The Lewis-Clark State College campus holds a health and wellness fair each Spring semester. A small group of first semester Nursing Program students reached out to beauty researcher and alumni Professor of Psychology at Lewis-Clark State College, Dr. Rhett Diessner. Together, they were able to develop a "brief guided mindful walk around campus" to reduce stress.



Tree Identification Tags

Throughout campus, many of the trees have species identification tags. These have been an on-going project for the campus for over 10 years. In 2021, additional tags were added, including some with QR codes that link to the campus tree tour. The tree identification tags were purchased with grant money from the Idaho Botanical Garden.



Tree ID tags for the Self-guided Tree Tour.
There are 14 stops on the tour. Each tag
shows the number of where you are in the
tour and provides a QR code to access our
website with the tree tour information. The
tags display the common name and
scientific name of the tree, and the logos for
being an Accredited Arboretum with ArbNet
and a Tree Campus Higher Education with
the Arbor Day Foundation.

The addition of tree identification tags gives courses on campus, such a botany, the ability to use our Arboretum when learning plant identification. All visitors to the campus can engage with the tree tags, and even connect to our website via a QR code, and deepen their understanding of our trees. The tree tags were installed by members of our Arboretum Committee as well as a high school volunteer.

Tree Inventory

The inventory of LCSC campus trees started when the Arboretum Committee was founded in 2008. Each semester, students work to keep the tree inventory updated. During the Spring 2020 semester, all trees that had been previously charted were confirmed by our then LCSC Work Scholar, Ben Stowell. Trees that had been removed due to disease or damage we noted in the inventory. Each semester, GIS students are guided by Professor Jenni Light in updating the inventory.

Information on data included in the Tree Inventory and a link to the data is provided in the Standard 2 – Campus Tree Care Plan > The LCSC Tree Care Plan > Goals and Targets > Tree Inventory section.



Screen capture of the Tree Inventory Map from the online database.

Research on Tree Walks to Reduce Stress

In 2019, LCSC professors Dr. Rhett Diessner and Dr. Rachelle Genthos, and their undergraduate research assistants studied the stress relieving qualities of taking a 10 minute "tree walk" on campus. Participants were directed to stop four times along the walk to mindfully pay attention, with all their senses, to particular trees. The walk started at a dawn redwood (Metasequoia glyptostroboides), then went to a giant linden/basswood (Tilia americana), next a tall elm (Ulmus americana), and ended with a large pair of sequoias (Sequoiadendron giganteum).

Results showed significant stress reduction for the tree walkers, compared to a non-walking control group. The benefits of stress reduction were the most substantial for the students who had the highest levels of stress at the beginning of the walk. The service learning was most pronounced for the six student research assistants, and the 18 students in an advanced research methods class, who served as the guides on the walks.

Learning Garden

The Lewis-Clark State College Learning Garden and Outdoor Classroom serves the campus and the community by providing a creative and inspiring learning facility. The Learning Garden supports the LCSC motto of "Connecting learning to life" by providing access to fresh, locally-grown foods, demonstrating environmental sustainability, practicing wellness techniques, and developing plant-based experimental educational opportunities on the LCSC campus. In 2015, student scholar Doug Koch planted fruit trees in the garden. Today, the trees bear fruit and contribute to the locally-grown foods.

Campus Tree Tours

As part of the Introduction to GIS (GIS 271) several service-learning opportunities are available. One of those is an opportunity for students to create a tree tour. For 2018 students completed tours featuring four or five favorite trees of people who care deeply about the campus urban forest. This year the students completed tours for Todd Kilburn (co-Chair of the Arboretum Committee), Dr. Bill Manschreck (Arboretum Committee member and LCSC Foundation), and Liz Martin (LCSC Faculty).

The tree tours were posted on the LCSC website. Creation of the maps combined learning with interactions between the campus community and community members. The project enhanced both the students' knowledge of using GIS with creating a tree tour that can be used by all visitors to the LCSC campus. Each student spent approximately 15 hours creating the GIS maps for this project (3 students x 15 hours = 45 total hours). Along with the Tree Tours being featured on the website, they were featured at the Arboretum Committee booth at the fall 2019 Welcome Fair event.

Conclusion

Lewis-Clark State College strives to maintain a healthy urban forest on their campus in Lewiston, Idaho. The <u>mission of LCSC</u> is to prepare students to become successful leaders, engaged citizens, and lifelong learners (Full URL: https://www.lcsc.edu/president/vision-mission-strategic-plan). The core themes at LCSC are *opportunity, success, and partnerships*. In alignment with Tree Campus Higher Education, LCSC seeks to promote *opportunities* for students to learn about importance of trees, *successfully* maintain and grow our urban forest, and create *partnerships* with organizations who share of mission of stewardship.



Reid Centennial Hall at Lewis-Clark State College, built in 1893, is the oldest building still in use in Idaho's higher education system.

Appendices

Appendix A – Definition of Terms

- Arborist: A specialist in the cultivation and care of trees and shrubs, including tree surgery, the
 diagnosis, treatment, and prevention of tree diseases, and the control of pests.
- ANSI A300 Standards: ANSI is the American National Standards Institute, with ANSI A300 being the
 tree care industry standard of care.
- **Diameter, breast height (DBH)**: The diameter or width of the main stem of a tree as measured 4.5 feet above the natural grade at its base. Whenever a branch, limb, defect or abnormal swelling of the trunk occurs at this height, the DBH shall be measured at the nearest point above or below 4.5 feet at which a normal diameter occurs.
- Guying: (see Staking)
- Hat-racking: Removing apical stems on young trees to curtail height
- Heading Cut: Cutting a branch back to a small twig that will not assume dominance to achieve structural objectives
- Landscape Architect: Landscape architecture is regulated in Idaho. All landscape architects are required to be licensed
- **Staking:** Staking and guying trees provide wind protection and allow trees to grow straight. Though not always necessary, they are useful in certain circumstances such as areas with strong prevailing winds and top-heavy trees with small root balls. Without proper support, trees can shift back and forth in their planting holes, severing smaller roots and lengthening the establishment period.
- **Tree Protection Zone:** An area surrounding a tree where certain activities are prohibited during construction in an effort to prevent damage
- **Topping:** An intermodal cut to limit the size of a tree
- **Urban Forest:** A wooded area, forest, or collection of trees and vegetation that grows within a city, town, or suburb.

Appendix B – Recommended Tree List

Deciduous Trees

Small Deciduous Trees (<25' Mature Height)

Latin Name	Common Name	Notes (if needed)
Acer griseum	Paperbark Maple	
Cercis canadensis	Eastern Red Bud	Pink to Purple Flowering; select cultivars not already on campus
Cotinus coggygria 'Atropurpurea'	Purple Smoke Tree	Purple Flowering
Cornus kousa	Kousa Dogwood	White Flowering
Prunus virginiana 'Can.Red'	Canada Red Chokecherry	White Flowering

Medium Deciduous Trees (25' - 60' Mature Height)

Latin Name	Common Name	Notes (if needed)
Aesculus x carnea	Red Horsechestnut	Red Flowering; Messy tree, plant away from sidewalks
Catalpa bignonoides	Catalpa	White flowering; Messy Tree, plant away from sidewalks
Cercidiphyllum japonicum	Katsura Tree	
Fraxinus Americana 'Aut. Purple'	Autumn Purple Ash	
Koelreuteria paniculata	Golden Rain Tree	Yellow Flowering
Liquidambar styraciflua	Sweet Gum	Messy tree, plant away from sidewalks
Sophora japonica	Pagoda/Scholar Tree	
Tilia cordata	Littleleaf Linden	
Zelkova serrata	Zelkova	

Large Deciduous Trees (>60' Mature Height)

Latin Name	Common Name	Notes (if needed)
Metasequoia glyptostroboides	Dawn Redwood	
Liriodendron tulipifera	Tulip Poplar	Messy tree, plant away from sidewalks
Fagus sylvatica pupurea	Purple Beech	
Fagus sylvatica 'Tri-Color'	Tri-Color Beech	
Quercus frainetto	Forest Green Oak	Messy tree, plant away from sidewalks

Evergreen Trees

Small Evergreen Trees (<25' Mature Height)

Latin Name	Common Name	Notes (if needed)
Chamaecyparis obtuse.	Hinoki Cypress	Needs moisture; best in shaded areas

Medium Evergreen Trees (25' - 60' Mature Height)

Latin Name	Common Name	Notes (if needed)
Cupressus arizonica	Arizona Cypress	
Cupressus × leylandii	Leyland Cypress	

Large Evergreen Trees (>60' Mature Height)

Latin Name	Common Name	Notes (if needed)
Abies concolor	White (Concolor) Fir	
Cedrus atlantica	Atlas Cedar	
Cedrus libanii	Lebanon Cedar	
Sequoiadendron giganteum	Sequoia	

Note: Tree species not on this list need to be approved by a landscape architect or arborist representing the Arboretum Committee before being planted on campus. This includes trees planted as memorials.

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