

TITLE: EDUCATION UPDATES ON THE WEBSITE

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ABSTRACT:

The goal of this project was to make the Education Department's presence on the web site more current and diverse. I focused on four major areas to update: General Public Education, Classes, the Internship Program, and Tours. In each area I updated the existing text and photographs and added new material that would make the Morris Arboretum web site more interesting and easier to navigate. In general, my goal was to make the Morris Arboretum web site a part of the public's visit the Arboretum; a place that visitors would go before, during and after their actual visit to the Arboretum grounds for a tour, an internship or a day time visit.

Education Updates on the Website

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GOALS

Web sites are the modern face of public institutions. An updated and user-friendly web site attracts more visitors to the web site that in turn attracts more visitors to the physical site itself. Internet users respond to pictures and concise text. The average time a visitor spends on a web site is under 1 minute¹⁵. Therefore, we have a small window in which to catch visitors' attention and successfully inform the visitors about our various educational programs. The Education Department at the Morris Arboretum was in need of better representation on the web. My project looked at the needs of the Education Department on the web site and where subtle or significant changes could be made, with a focus on adding depth to the web site and ease of use. I divided Education on the web site into four categories: General Public Education, Classes, Internship Program, and Tours. Within each category, I researched other botanical gardens and arboreta to see what else was out there and what seemed to be working to promote educational programs at other gardens. I then set the goal to accomplish a series of tasks in each category during my year as education intern.

RESEARCH

I selected several gardens and arboreta that shared common mission statements and studied their web sites and their placement in search engines such as Google and Bing. The gardens and arboreta I researched included Chicago Botanic Garden, Morton Arboretum, New York Botanical Garden, Denver Botanic Garden, Brooklyn Botanical Garden, and Longwood Gardens. The web sites of these institutions each had some element of interest and I was particularly interested in the use of videos and self-guided tours. I also looked at the internship programs offered at institutions such as Arnold Arboretum and BBG to get a sense of how well we are advertising our internship program. Based on this research I determined the way in which Education on the Morris Arboretum web site could be better accessed and utilized. As a part of my research, I also attended a workshop on "Getting results from your online marketing" in the early summer to get more advice on how the public generally views a web site and how to maximize a visitor's time there.

IMPLEMENTATION

First I evaluated what we already had in place and what changes could be made. I met with Zac Brooks, Arboretum web manager, several times to discuss the process we would use to create and upload new material. I selected four categories in which to work: general public education, classes, internship program, and tours. In each category I selected a minimum of two areas of improvement. My project took place over the course of the year with the help and

¹⁵ Based on Google Analytics

review of my supervisors, Jan McFarlan and Liza Hawley, as well as Lisa Bailey, Zac Brooks, Tony Aiello, Susan Crane, and Tim Block.

General Public Education

My goal in this area was to add activities and information to the web site that would encourage the public to log onto the web site before, during, and after their visit. In the area of General Public Education I created a monthly “What’s in Bloom” map for each month so that returning visitors would have a fresh look at the collection each month. I added a new downloadable self-guided Wetlands Tour to encourage visitors to learn more about a unique and often under visited garden feature. I also helped develop rack cards targeting a younger audience with a supplementary sheet of seasonal activities to be found online that encourage visitors to use our web site to find nature based activities that can be done at home or at the Arboretum.

Classes

Classes are valuable programs and the Arboretum has established an excellent reputation for offering high quality educational courses. However there are still some classes that remain unfilled and I hope to use the internet to both ease class selection and to advertise upcoming or annual classes. I have also been working to create a post-class online survey and advertize the course catalogue through online videos. The online survey is off to a good start and beginning to bring in some valuable feedback and the videos will hopefully be completed this May (2011).

Internship Program and Tours

The internship and tour pages needed a major upgrade. In both areas the photos and content were out of date, the writing was verbose and the pages were difficult to navigate. First I added many updated photographs on the intern and tour pages. On both pages I changed the text and layout to create a format that was easier to navigate and was filled with more concise language.

The internship program is one of the best programs in the country. My goal for the internship program was promotion. In my first week on the job I created a Facebook page for current interns, alumni and friends of the program. Facebook is the format in which young people communicate, socialize, and connect with each other. The Morris Arboretum Facebook page creates a space to reach current and past interns while advertising the internship program (through the many pictures of our Thursday sessions) to potential interns. In another attempt to promote the internship online, I made sure that the intern positions were advertised on popular job sites such as Craigslist, Philaculture and the APGA. I also signed up for Google Alerts for the phrase “Morris Arboretum Internship” so that whenever the internship program was referenced online I would receive a notice and could see who was referencing the program and in what context.

Part of the mission statement and original will of John and Lydia Morris is the encouragement of stewardship. The tours for all ages embody the mission of stewardship. The tour pages were updated in order to be more accessible to teachers and schools and in order to provide more information to potential group tour participants.

CHALLENGES AND ADJUSTMENTS

My greatest challenge was the completion of the Wetlands Tour. I began the initial outline and research in the fall and the first final draft was completed in January. It was still in need of work and due to inclement weather and the struggle of learning about the wetlands while at the same time trying to produce an effective and educational tour, the process proceeded slowly. At the beginning of the intern year, I anticipated making several self-guided tours during my time here but I did not anticipate how long the process can take. An added obstacle was the many check-points this tour went through, so the time it took for other staff members to review and edit the tour as well as the conflict of my many other obligations that often took precedent over the finishing the wetlands tour once and for all. It is still a goal of mine to create one more self-guided tour before June.

The greatest adjustment I had to make in my plans was in cancelling the creation of audio tours. In my initial research I was impressed with audio tours in podcast format such as the mural arts tours of Philadelphia. After surveying the Arboretum visitors on a very busy day in the fall (Black Friday), I realized that energy would be misspent on audio tours. I surveyed about 50 people and asked the following questions:

Did you look at the Morris Arboretum web site before your visit today?

Did you know about the new seasonal family activities and self-guided what's in bloom maps available on the web?

In what area would you like to learn more about the Arboretum?

(for those who seemed stuck on coming up with their own idea, I had a list of possible themed tours including: History of the Morris, The Fernery, The Garden Railway, Medicinal Trees, Native Plants, and Edible Plants). I also was given a few suggestions for tours, including: Tree Identification (go find specific trees), Fragrant Plants, Birding, Educational Tours for Kids, and The Rose Garden.

Would you enjoy listening to an audio tour at the Arboretum? (2 yes responses only)

The most valuable opportunity I had that day was observation. I realized that though the Arboretum is a living museum, its visitors do not travel through the Arboretum in the same way they would a museum. People tended to travel in groups, even those who had been here many times came with other people. There were many family groups and there was a lot of interaction between people in the group, unlike an art museum, for example, where families often split up and rejoin each other several times throughout the visit; at the Arboretum, people stuck to their groups and to change the dynamic, by encouraging the use of headphones, would seem to disrupt the standard way in which people visit the Arboretum.

FEEDBACK

Google Analytics was used to trace the activity on the new web pages. I checked in several times throughout the year and was pleased with the results but would like to see even more activity. Advertising the new features of our web site would help inform the public that the web site is now a place to go to learn about horticulture and download fun and interesting activities. An article in the local Chestnut Hill newspaper would help raise awareness, as well as continuing to place the Arboretum's web address on every publication we create.

FUTURE WORK

The final piece of my project is to produce a series of videos for the Web site. The videos will be filmed and edited by Joe Cozza, for his senior project at Chestnut Hill Academy. Video topics will include "how-to" videos: pruning roses, green roof, greenhouse, arboriculture and events such as the Japanese Cherry Blossom Festival, the Plant Sale and weddings.

CONCLUSIONS

Many small but significant changes have helped the Morris Arboretum's web site become a fresher and easier site to navigate. A current and updated web site puts our best face forward to members and potential visitors. I believe my work has helped show the public why the Arboretum is such a valuable educational institution.

Special thanks to Jan McFarlan, Liza Hawley, Lisa Bailey, Zac Brooks, Tony Aiello, Susan Crane, and Tim Block for their advice, edits, suggestions, and corrections.

APPENDIX A: What's in Bloom



What's in Bloom? OCTOBER

Aesculus parviflora
(Bottlebrush Buckeye)



This large deciduous shrub turns a vibrant yellow each October.

Hydrangea quercifolia
(Oakleaf Hydrangea)



A native hydrangea aptly named for its colorful oak-like foliage.

Helianthus angustifolius
'Gold Lace' (Swamp Sunflower)



In the Aster family, this perennial loves sun and wet soil.

Seven Arches

Near Key Fountain

Cottage

Near Rose Garden

Visitor Center

Near Greenhouse

*Symphotrichum oblongi-
folium* 'Raydon's Favorite'
(Aromatic Aster)



An aromatic fall bloom that attracts butterflies and makes a great cut flower.

Enkianthus perulatus
'J.L. Pennock'
(J.L. Pennock White Enkianthus)



Propagated at the Morris Arboretum, this shrub has striking fall color.

Itea virginica 'Henry's
Garnet' (Virginia Sweetspire)



This shrub is native to the eastern United States and keeps its bright fall color for several months.

What's in Color? **NOVEMBER**

Fagus engleriana
(Engler beech)



Take refuge under the russet limbs of the Engler beech! It is a rare variety and one of our Great Trees.

Near the Swan Pond

Cercidiphyllum japonicum
(Katsura-tree)



Considered by some to be the greatest tree at the Arboretum, the katsura has great fall color and emits a sweet aroma.

Azalea Meadow

Metasequoia glyptostroboides
(Dawn redwood)



The Dawn redwoods are deciduous conifers that were thought to be extinct until their rediscovery in 1941!

Near the Log Cabin

www.morrisarboretum.org • 215.247.5777



Oak Allée

Long Fountain

Out on a Limb

Ilex serrata
(Fine tooth holly)



This plant, native to Asia, provides a bright splash of color on the Oak Allée.

Lindera salicifolia
(Willow-leaved spicebush)



The long fountain is brought to life, surrounded by the bright colors and spicy scent of this Laurel family shrub.

Acer palmatum
(Japanese maple)



Vibrant varieties of Japanese maple dot the Arboretum grounds with color this month!



**Morris Arboretum of the
University of Pennsylvania**
Official arboretum of the Commonwealth of Pennsylvania

Winter Interest **FEBRUARY**

Eranthis hyemalis
(winter aconite)



This member of the buttercup family (*Ranunculaceae*) provides a bright splash of color in late February.

Hamamelis mollis
(Chinese witchhazel)



Fragrant witchhazel of several varieties ushers in spring around the Arboretum!

Galanthus (snow drops)



Named for its milk-white petals, this is one of the earliest blooms in late winter.

near the Greenhouse

near Mercury Loggia

Out on a Limb

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Oak Allée

Meadow Garden

Visitor Center

Chimonanthus praecox
(wintersweet)



Native to China, wintersweet adds fragrance and color to the Oak Allée.

Hamamelis x intermedia
'Rubin' (Rubin witchhazel)



This bright pink cultivar is a hybrid of *H. mollis* and *H. japonica*.

Hamamelis x intermedia
'Pallida' (pale witchhazel)



The late winter flowers of this plant bloom before the spring foliage emerges.

APPENDIX B: Wetlands Tour

Wetlands Tour

Morris Arboretum *of the*
University of Pennsylvania

What Are Wetlands?

Wetlands are areas of land that are saturated enough with ground water that they can support flood tolerant vegetation or plants that require wet soil. Wetlands are transition zones between dry land and deep water.

Why Are Wetlands Important?

Wetlands are a home and refuge to a great biodiversity. Wetlands collect rain and ground water and act as a filter, slowing down and cleaning the water. Wetlands can also hold excess water during a storm to prevent overflow into the sewer system.



History of the Morris Arboretum Wetlands

1717 This parcel of land was deeded to John and Lenart Streeper by William Penn. It was used for farming and mining of iron ore and limestone.

1892 Floodplain purchased by John and Lydia Morris to add to their Compton estate. A cow barn was built at the top of the slope and Jersey cows were pastured down the slope to the Wissahickon Creek.

1910 In order to create better land for grazing, John Morris installed drainage tiles that successfully drained the wetlands adjacent to the creek for better pasture lands.

1932 Morris Arboretum was founded upon the death of Lydia Morris. The lower slope and meadow were leased by the Arboretum for grazing and hay production until the 1950's. Beef cattle grazed here during WWII to supply the war effort.

1996 The Arboretum proposed a Paper Mill Run restoration and demonstration project that began in 1998.

2001-2 Thanks to funds from the Pennsylvania Department of Environmental Protection and the E.P.A. to restore the wetlands and meadows as demonstration sites for ecological land management. Initial installation began in 2001-2 and plantings continue today. The underground tiles were broken and natural spring water was able to flow through the flood plain once again. The water level can be adjusted to control vegetation or to prepare the area to receive runoff from a major storm.

Today, the Arboretum's wetland area has been restored to its original function.



Your tour

The wetland and its floodplain encompass about 35 acres of the Arboretum. Today we will focus on the pond and its immediate surroundings. Park in the floodplain, left of kiosk and walk south-west to the wetland. Keep your ears and eyes open for the animal and plant life that thrive in our wetlands.



Find these native plants:

- 1 *Viburnum dentatum* (arrow-wood viburnum) 2002-365*A
- 2 *Cercis canadensis* (eastern redbud) 2003-064*A
- 3 *Platanus occidentalis* (American sycamore) 2002-362*A
- 4 *Quercus palustris* (pin oak) 2005-025*B
- 5 *Betula nigra* (river birch) 2001-378*A
- 6 *Alnus serrulata* (hazel alder) 2003-079*A
- 7 *Salix nigra* (black willow) 2003-124*A
- 8 *Cladrastis kentukea* (American yellow-wood) 54-1073*A
- 9 *Ilex verticillata* (common winterberry) 2004-142*A
- 10 *Acer rubrum* 'Frank'sred' Red Sunset red maple 2005-224*A
- A Signage

Spot this wetland vegetation:



Solidago speciosa
golden rod



Vernonia novaboracensis
iron weed



Physocarpus opulifolius
common ninebark

Look and listen for these local and migratory animals:



belted kingfisher



blue heron



eastern painted turtle

Bird Boxes

The Morris Arboretum installed bluebird, wood duck, kestrel and bat boxes to encourage wildlife to inhabit the area. Our wetlands are now a sanctuary both for wildlife and nature lovers!



Photo: David J. Miller



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www.morrisarboretum.org

Illustrations by Anna Anilko with permission from the University of Pennsylvania Press

APPENDIX C: Seasonal Family Fun Activities

Fall Family Fun – Exploring the Changing Seasons

Autumn provides a great opportunity for outdoor exploration. Here are some great hands-on family activities that require little cost or preparation.

Autumn Journal

Create a journal from recycled paper and cardboard or use an old notebook. Fill the pages with notes, pictures, and stories about the changes you observe on a nature walk.

- Use drawings, crayon rubbings, or photographs
- Note when the leaves change color and drop
- Gather the most colorful leaves to press in your journal
- Note weather patterns, the first frost, or wildlife behavior

Keep it to compare the seasons from year to year.

Questions inspire creative thinking:

Why are the leaves falling?

Which tree do you think will lose its leaves last?

How do the leaves look, smell, and feel?

Exploration generates questions; don't be intimidated by the questions that may come up! Ask Arboretum staff and volunteers, visit The Shop, or borrow a reference book from your public library to learn more about what you're seeing.

Scavenger Hunt

Bring along a plant ID guide and a magnifying lens. Search for certain colored leaves, the biggest acorns, or different types of fruit. Imagine life as a squirrel and challenge your spatial memory by hiding acorns like a squirrel and returning later in the day to find them.

Collage and Decoupage

Bring the season's colors into your home with collages of pressed foliage. Place leaves between sheets of transparent contact paper to make placemats and bookmarks. Use decoupage glue to decorate jars, vases, cards, and other items.

Twig Picture Frames

Collect sticks to make a twig picture frame for a favorite photograph. Construct a frame by overlapping the sticks and tying with a string at the corners, or glue the sticks onto the photo as a border.

Most importantly, remember to listen with your imagination and be creative! Take advantage of the beautiful colors of fall and make it a season to remember!!

Winter Family Fun Activities

Warm up with these fun activities to do at the Arboretum and at home with your family!



"Cabin Fever" Remedy

Don't succumb to cabin fever! Get outside and enjoy the winter wonderland! Take a walk and observe how animals survive the cold months of winter! Stimulate your children's imaginations and try to imagine life as a wild animal in winter. Can you spot the berries and acorns that the animals eat? Help your furry friends find food by covering a pinecone with peanut butter and bird seeds and hang it from a tree in your yard!



Bring the Outside In!

Make sure you head outside when the snow falls and make your best snow angels and snowmen! Watch the falling snow flakes and then take the fun inside and create your own snowflakes out of paper (recycled is best).

How it works:

Cut out a circle of any size (plates are helpful for tracing). Fold the circle in half, then fold it into $\frac{1}{4}$ of a circle and finally; fold that piece once more to create $\frac{1}{8}$ of a circle. Then snip and cut into the paper to create the design of your choice! Unfold and hang your snowflakes around your house, creating an indoor winter wonderland!



Fun Facts: How plants prepare for the cold!

The winter landscape may seem quiet, but underground, seeds are preparing for spring. Covered by a warm blanket of soil, leaves, and sometimes snow, these seeds are waiting in a state of dormancy for warmer days.

While waiting patiently for spring, the seeds are benefiting from the colder temperatures, a necessary element to ensure germination in the spring. During fall, deciduous trees and shrubs absorbed all the nutrients from their leaves into their branches and trunks, dropping the remnants in a brilliant array of fall color. After bringing water and nutrients into the stems and trunk, trees change these nutrients into substances that will not freeze. In essence, trees create their own antifreeze allowing them to stay alive despite freezing temperatures.



Visit www.morrisarboretum.org
for more Family Fun activities



APPENDIX D: Zoomerang

Contemporary Tree Appraisal Results Overview



Date: 3/31/2011 6:49 AM PST
Responses: Completed
Filter: No filter applied

Course Title: Contemporary Tree Appraisal

Instructor(s): David Hucker

Date: 2/18/11

3. Course Material and Organization Course Content

1	Poor		0	0%
2	Fair		0	0%
3	Good		3	38%
4	Excellent		5	62%
Total			6	100%

4. Fulfillment of the Course Objectives

1	Poor		0	0%
2	Fair		2	25%
3	Good		2	25%
4	Excellent		4	50%
Total			6	100%

5. Organization of the Course

1	Poor		0	0%
2	Fair		1	12%
3	Good		4	50%
4	Excellent		3	38%
Total			8	100%

6. Overall Rating of Course

1 Poor		0	0%
2 Fair		1	12%
3 Good		2	25%
4 Excellent		5	62%
Total		8	100%

7. Instructor(s) and Presentation Instructor(s)'s Knowledge of the Subject Matter

1 Poor		0	0%
2 Fair		0	0%
3 Good		1	12%
4 Excellent		7	88%
Total		8	100%

8. Enthusiasm of the Instructor(s)

1 Poor		0	0%
2 Fair		0	0%
3 Good		0	0%
4 Excellent		8	100%
Total		8	100%

9. Attitude toward Students

1 Poor		0	0%
2 Fair		0	0%
3 Good		3	38%
4 Excellent		5	62%
Total		8	100%

10. Overall Rating of Instructor(s)

1 Poor		0	0%
2 Fair		1	12%
3 Good		2	25%

4 Excellent		5	62%
Total		8	100%



12. How did you hear about this course?

Brochure		5	62%
Web Site		3	38%
Newspaper		0	0%
Friend/Colleague		1	12%
Other		1	12%

13. What was your main purpose for attending?

Personal Interest		1	12%
Professional Development		7	88%
Professional Certification (School of Arboriculture)		1	12%
Professional Certificate (Audubon Advisors)		0	0%
Professional Certificate (Landscape Design)		0	0%

14. What meeting time for our classes would be most convenient for you?

Weekday Daytime		7	88%
Weekday Evenings		0	0%
Weekends		1	12%

APPENDIX E: Internship Updates

Internships

- 1) Under ABOUT-Employment: List Internship before volunteer opportunities
- 2) PAGE 1:
 - a) OVERVIEW: Morris Arboretum is a historic public garden and educational institution. It promotes an understanding of the relationship between plants, people and place through programs that integrate science, art and the humanities. The internship program provides hands on experience and education that prepares interns for careers in public gardens and related fields.
 - i) Morris Arboretum offers year-long, full-time internships with full benefits in the following areas:
 - Arborist
 - Education
 - Flora of Pennsylvania
 - Horticulture
 - Natural Lands
 - Plant Protection
 - Propagation
 - Rose and Flower
 - Urban Forestry(***click here on each position to access position pages**)
- 3) Two pictures of current interns (1. group shot at Chanticleer 2.group shot at Society Hill)
- 4) PAGE 2: (listed as a link on the side of the main page or a pull down below)
 - a) CORE CURRICULUM: In addition to your regular duties, the interns participate in weekly afternoon seminars and field trips and they staff the Arboretum Plant Clinic. During the year-long program, the interns are also enrolled and will receive graduate level credit for “Issues in Arboretum Management I and II” through the Department of Landscape Architecture at the University of Pennsylvania.
 - i) LINK 1: Weekly seminars and practical sessions: these afternoon sessions allow the interns to interact with Arboretum staff and other professionals from various botanical gardens and arboreta. Session topics are diverse and have included:
 - The basics of beekeeping
 - History of plant exploration
 - Tree climbing basics
 - Propagation by seeds and cutting
 - Diseases of pest and ornamental plants
 - Winter botany
 - ii) With two to three pictures of the sessions (tree climbing, greenhouse, beehives)
 - iii) LINK 2: Field Trips: partial or full-day trips provide interns with comparisons of the operations of other managed public landscapes and natural areas. Recent trips include:

- The Highline
 - Bartram's Garden
 - Academy of Natural Sciences
 - Chanticleer Gardens
 - Beneficial Insect Research Lab
 - Wave Hill
 - Brooklyn Botanical Garden
 - New York Botanical Garden
 - Mt. Cuba Center for the Study of Piedmont Flora
 - Island Beach State Park
 - Reeves-Reed Arboretum
 - Frelinghuysen Arboretum
- iv) With two pictures (Highline, Society Hill)
- v) LINK 3: Plant Clinic: staffed by interns, the Plant Clinic provides the opportunity to assist the public in diagnosing plant pests and disease inquiries as well as plant identification and general horticulture questions.
- Pictures: close-ups of plants and pests
- vi) LINK 4: Issues in Arboretum Management I and II: Interns receive credit hours based in their performance each semester in the following categories:
- LIVING COLLECTIONS SESSIONS: monthly sessions focusing on trees of botanical interest in the Arboretum collection where interns will refine their skills in plant identification, use and culture. There will be a written and field exam at the end of each semester. Collections discussed include: summer blooming plants, shade trees, roses, maples, oaks, and more!
 - * Pictures of trees through the seasons
 - INDEPENDENT STUDY PROJECT: each intern completes an independent study project that is geared towards advancing his or her career development and the Arboretum's mission. Each project consists of an oral presentation and a written report. Towards the end of the internship program, all independent study projects are presented to the Arboretum staff.
 - * Pictures of summer camp, green roof, interns at tree (old photo)
- 5) Page 3 (listed as a link on the side of the main page or a pull down below)
- a) ADDITIONAL INFORMATION
- i) Payment:
- As full-time employees of the University of Pennsylvania, interns work a 40-hour week at an hourly rate of \$9.75. Interns must commit themselves for the full year term.
- ii) Housing:
- Arboretum staff assists the interns in finding housing by providing a list of nearby affordable options. Occasionally there are opportunities for the interns to live with hosts and exchange work around the home of their hosts for a reduced rent.
- Helpful Housing Links:
- www.craigslist.org

www.4wallsinPhilly.com

www.chestnuthilllocal.com

iii) Benefits:

- Interns receive **health, dental, and vision benefits** (link to health benefit page) through the University of Pennsylvania.
- Additional benefits include paid vacation time, sick days, and several paid holidays plus an administrative vacation for all staff and interns is provided between Christmas and New Year's Day.
- More Opportunities to Grow: All interns are eligible for additional tuition benefits at the University of Pennsylvania, Chestnut Hill College, and Temple University's Ambler Campus. **(LINK TO UNIVERSITY WEB PAGES?)**
- Interns may also sign up to take free classes from our **seasonal course brochure** (link to course catalogue) and are encouraged to attend Arboretum-sponsored conferences and symposia that they find of interest and that will further their professional development.

6) Page 4:

a) APPLY

i) Gather the following:

- Cover letter indicating how this internship can help you attain your goals and specify the position(s) for which you are applying
- Resume
- Academic transcript
- 3 letters of recommendation including one academic and one work reference
- Applicants must also complete the University of Pennsylvania's application process. **Click here for the appropriate form** (link to Penn application)
- Print out the completed application and mail a signed copy along with the other materials to:

Jan McFarlan, Education Coordinator
Morris Arboretum of the University of Pennsylvania
100 E. Northwestern Ave
Philadelphia, PA 19118

International Students are accepted

Questions? Call Jan McFarlan, Education Coordinator at 215-246-5777 x 156
Or email at jlm@exchange.upenn.edu

Applications are must be received by February 15th for the 2011 Internship Program

b) PICTURE OF GREEN ROOF

APPENDIX F: Facebook Snapshot

The screenshot shows a Windows Internet Explorer browser window displaying a Facebook profile page for "Morris Arboretum-Interns". The browser's address bar shows the URL: `http://www.facebook.com/update_security_info.php?wizard=1#/profile.php?id=100001220088030`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains various icons for search, share, bookmarks, and other functions. The Facebook interface is in English and shows the following elements:

- Header:** The Facebook logo is on the left. A search bar is in the center. On the right are links for Home, Profile, and Account.
- Profile Information:** The profile name is "Morris Arboretum-Interns". Below it, it says "Has worked at Morris Arboretum", "Studied at University of Pennsylvania", and "Lives in Philadelphia, Pennsylvania". There are links to "Add your hometown", "Add languages you know", and "Edit Profile".
- Profile Picture:** A group photo of several people standing in front of a building.
- Left Sidebar:**
 - Wall:** A link to the profile's wall.
 - Info:** A link to the profile's information page.
 - Photos (33):** A link to the profile's photo album.
 - Notes:** A link to the profile's notes.
 - Friends:** A link to the profile's friends list.
 - Friends (99):** A list of friends with their names and profile pictures: Ellen Pleasetakemes... Weatherholt, Rebecca Bakker, Teresa Trego Temple, Grace Chapman University of Florida, Adele Tedesco Waerig UPenn, Rich Orth, Bianca Knoll Nakayama Macalester, Betsy Lewis Roberts, and Deborah Caraher.
- Main Content Area:**
 - Share:** A section with tabs for Status, Photo, Link, and Video. Below the tabs is a text box that says "What's on your mind?".
 - Post 1:** A photo of a building with the caption "Morris Arboretum-Interns Orange Balustrade circa 1900 Come to CJ Cakani's intern presentation today at 12:30 on the Redesign of the Orange Balustrade!". It was posted 4 hours ago and has a "Like" button.
 - Post 2:** A photo of a person with the caption "Anne Brennan Wow, the trees were really small then." It was posted 4 hours ago and has a "Like" button.
 - Post 3:** A photo of a group of people with the caption "Paul Meyer". It was posted on March 14 at 6:29pm and has "Unlike", "Comment", and "See Friendship" buttons.
- Right Sidebar:**
 - People You May Know:** A section with two suggestions: Keelin Purcell (6 mutual friends) and Zoe Panchen (4 mutual friends). Each has an "Add as friend" button.
 - Sponsored:** A section with two ads: "Dr Oz Diet - Lose 9lbs" from drozfans.com and "Dermatologists Hate Her" from shrinkyourwrinkles.com.
 - Blueprint LSAT Courses:** An ad for LSAT courses from blueprintprep.com.
 - Penn Ayn Rand Lecture:** An ad for a free lecture by Ayn Rand from the University of Pennsylvania.
- Footer:** The browser's status bar shows the URL `http://www.facebook.com/editprofile.php`, the Internet icon, and the time 3:32 PM.

APPENDIX G: Tour Page Updates

PLAN YOUR VISIT

GUIDED TOURS

(picture)

1) Field trips

Let nature be your classroom!

Visit the Arboretum with your class, home school group or summer camp!

(picture)

2) All access tours

No reservations needed!

Just show up and enjoy these regularly scheduled tours

(picture)

3) Prearranged tours

Call ahead for a tour that will interest your group!

Discover hidden treasures at the Arboretum!

FIELD TRIPS AT THE ARBORETUM

Choose a tour from the list below then call or email Lisa Bailey at 215-247-5777 x 157 or baileyl@exchange.upenn.edu to make arrangements for your visit!

General Tour (all ages)

Big Trees Tour (all ages)

Seasons and Cycles (K-2)

Tree Adventure Tour I (K-3)

Food Factory (2-3)

Trees Where We Live (3-5)

Calculate and Cultivate (4-6)

Tree Adventure Tour II (4-6)

Plant Reproduction: Seed Formation (5-6)

Plant Reproduction: Seed Dispersal (5-6)

Wetlands Exploration (4-7)

Tu B'Shevat (Pre-K-3)

Arbor Week (K-4)

Click here for a list of PA Department of Education Academic Standards met on our tours!
(this links to PAGE 7)

General Tour

All Ages

Explore our 92-acre living museum.
See the tree highlights!
Learn about the Arboretum's history.

Tour Length: 1 hour

PHOTO

Big Trees Tour

All Ages

Morris Arboretum is home to some of the oldest, rarest and largest trees in Philadelphia!
Learn about trees that are native to Pennsylvania and beyond.
Discover the ancient Dawn Redwoods—originally found in North America more than 150 million years ago!
Learn about our state tree, the eastern hemlock.

Tour Length: 1 hour

PHOTO

Seasons and Cycles

Kindergarden-2nd Grade

Take a sensory journey through the Arboretum.
Learn the natural characteristics of each season.
Predict changes that plants will undergo with each season.
Collect plant material to bring home to your classroom!

Teacher's Guide: Pre and Post Visit Guide and Activities [CLICK on "teacher's guide"]

Tour Length: 1 hour

PHOTO

Tree Adventure Tour I

Kindergarden-3rd grade

Learn responsibility from a tree!
Leaves are responsible for producing food.
Bark is responsible for protecting the trunk.
Roots are responsible for absorbing water and storing food.
People are responsible for taking care of trees in their neighborhoods.

Tour Length: 1 hour

Food Factory
2nd and 3rd Grade

Become the parts of a tree to see how they work.
Study the parts of the amazing leaf.
Move materials along the trunk's transportation system.
Learn why a tree can stand up in a hurricane.

Teacher's Guide: Pre and Post Visit Guide and Activities!

Tour Length: 1 hour

Trees Where We Live
3rd -5th Grade

Southeastern Pennsylvania is an urban forest.
Find out why we need to take care of trees.
Discover how the trees keep us healthy and how we can help the health of the trees!
Learn about the urban forest habitat.
Learn about oxygen and other gifts we get from the trees!

Tour Length: 1 hour

PHOTO:

Calculate and Cultivate
4th-6th Grade

Work in teams to measure garden plots and determine the area.
Use math skills to graph plots and convert inches to feet.
Choose the plants you want to grow.
Compete with other teams and calculate your garden's yield and profit!

Teacher's Guide: Pre and Post Visit Guide and Activities

Tour Length: 2 hours

Tree Adventure Tour II
Grades: 4th -6th

Identify ways in which humans depend on nature for survival.

Understand how and why roots grow.
Learn about photosynthesis.
Learn how soil, water and sun help trees grow.

Teacher's Guide: [CLICK HERE](#) for Pre and Post visit guide and activities
Tour Length: 1 hour

Plant Reproduction (Seed Formation)
5th and 6th Grade

Explore the inner workings of a flower and the precision needed to create seeds.
Analyze the structure of a flower and the purpose of its parts.
Predict the pollination method of a plant based on floral characteristics!
Name the benefits of pollination and fertilization.
Describe the process of seed formation.

Teacher's Guide: [Click here](#) for Pre and Post visit activities
Tour Length: 1.5 hours

Plant Reproduction (Seed Dispersal)
5th and 6th Grade

Seeds ensure the survival of a species!
Learn where to find seeds.
Uncover how seeds are dispersed into nature.
*Seed dispersal in the Arboretum is best displayed from late summer into the fall.

Teacher's Guide: [Click here](#) for Pre and Post visit activities
Tour Length: 1.5 hours

Wetland Exploration
4th -7th Grade

Explore The Morris Arboretum Wetland on foot!
Discover the function of wetlands and why they are so vital to nature.
Observe and record the different plants and animals that thrive in a wetland.
Explain the environmental and economic consequences that can arise with the loss of wetlands.
Brainstorm ways we can help safeguard wetlands for the future!

Tour Length: 1.5 hours
PHOTO of wetlands

Tu B'Shevat

Pre-kindergarten – 3rd grade

Celebrate the Jewish New Year of Trees in late January / early February.

Transplant a native tree seedling to take home and watch it grow.

Play Arboretum Jeopardy®.

Find out why roots are so important to trees.

Reservations are accepted after November 1.

Arbor Week

Kindergarten – 4th grade

Celebrate Arbor Day during the last week of April.

Transplant a native tree seedling to take home and watch it grow.

Play Arboretum Jeopardy®.

Find out why roots are so important to trees.

Pennsylvania Academic Standards

<http://www.pacode.com/secure/data/022/chapter4/s4.83.html>

2.3 Measurement and Estimation

Trees Where We Live

Calculate and Cultivate

Tree Adventure Tour (4th -6th grade)

2.6 Statistics and Data Analysis

Calculate and Cultivate

3.2 Inquiry and Design

Trees Where We Live

Calculate and Cultivate

3.3 Biological Sciences

General Tour

Big Tree Tour

Seasons and Cycles

Tree Adventure Tour (K-3rd grade)

Plant Reproduction (Seed Formation)

Plant Reproduction (Seed Dispersal)

4.1 Watersheds and Wetlands

Understanding Wetlands

4.2 Renewable and Nonrenewable Resources

Plant Reproduction (Seed Formation)

Plant Reproduction (Seed Dispersal)

4.3 Environmental Health

Food Factory

Understanding the Wetlands

4.6 Ecosystems and Their Interactions

General Tour

Big Tree Tour

Tree Adventure Tour (K-3rd grade)

Tree Adventure Tour (4th -6th grade)

4.7 Threatened, Endangered and Extinct Species

Understanding Wetlands

4.8 Humans and the Environment

Trees Where We Live

Tree Adventure I and II

6.3 Scarcity and Choice

Wetlands Tour

All-Access Tours (no reservations needed)

Guided Tours

Every Saturday and Sunday at 2:00

Choose your adventure every Saturday and Sunday at 2 pm! Our knowledgeable guides will design a tour around the interests of the attendees! Every tour is different so come back as many times as you'd like!

Great Trees Tour

Sundays in April, July and October at 1:00

Many trees still remain from the Morris's estate. Come tour the grounds and discover the Great Trees of the Arboretum. Learn about our ancient and unique specimens while hearing a bit of history as you walk.

Click here for a Great Trees Tour map

Winter Wellness Walks

Saturdays November-March at 10:30

Take a brisk walk on the paved paths of the Arboretum. Led by a Volunteer Guide, you'll get your heart rate up in a terrific setting.

Photos

Join us for all tours at no additional payment beyond your entrance fee!

Prearranged Group Tours (call or email for reservations)

Select a Tour from the list below...

Group Rates:

Adult and Family Tours:

Adults: 12\$

Kids: 6\$

Select a tour from the list below:

Seniors: 10\$

Outstanding Trees

Garden Highlights

Victorian Garden

Japanese Elements

Winter Walk

Great Plants for Your Home

Art in the Garden

Penn Student Tours (see below**)

New Member Tours

New members of the Morris Arboretum can sign up for a complementary guided tour of the grounds. Book this tour and get to know the Arboretum!

...then make a TOUR RESERVATION (link reservation detail page)

Tour reservations can be made with Lisa Bailey, Education Administrative Assistant at baileyl@exchange.upenn.edu or 215-247-5777 x157...

School Tours and Field Trips:

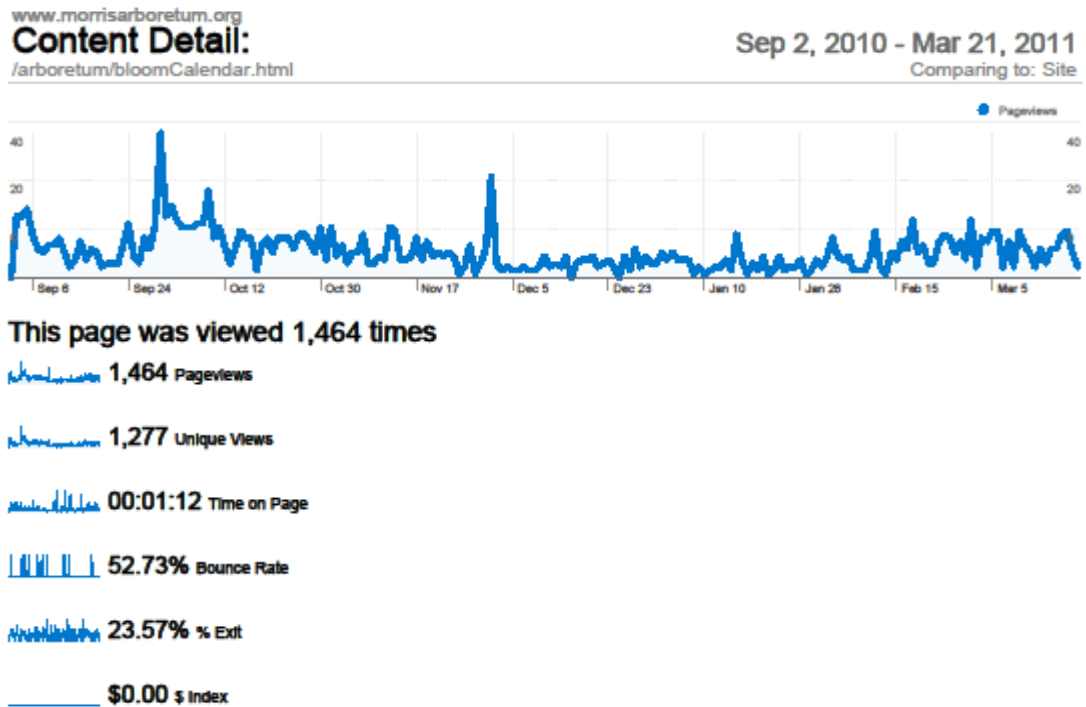
Click [HERE](#) to connect to our FIELD TRIP page!

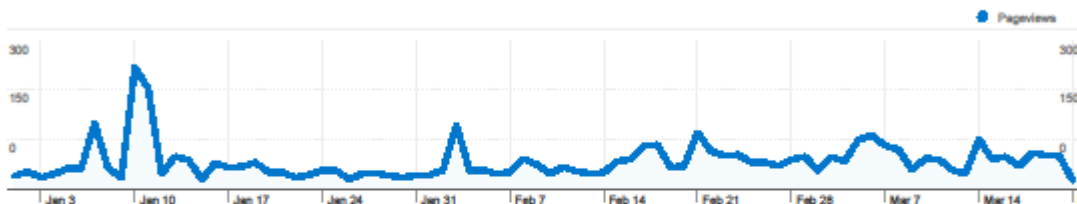
**Morris Arboretum offers free admission to University of Pennsylvania students.

Transportation from Penn's campus to the Arboretum is offered several times a semester.

Contact Miriam Pinsker at 215-247-5777 x 281 or mpinsker@upenn.edu

APPENDIX H: Google Analytics





21 pages were viewed a total of 4,489 times

Filtered for pages containing "tour"

Content Performance

Pageviews 4,489 % of Site Total: 3.13%	Unique Pageviews 3,223 % of Site Total: 3.12%	Avg. Time on Page 00:00:33 Site Avg: 00:00:55 (-38.67%)	Bounce Rate 39.08% Site Avg: 36.62% (6.73%)	% Exit 11.38% Site Avg: 23.66% (-51.88%)	\$ Index \$0.00 Site Avg: \$0.00 (0.00%)	
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit	\$ Index
/arboretum/visit_selfguidedtourmap.shtml	1,625	1,250	00:00:24	13.16%	6.65%	\$0.00
/arboretum/visit_tours.shtml	1,188	767	00:00:27	41.89%	11.72%	\$0.00
/arboretum/allAccessTours.shtml	680	559	00:00:58	70.42%	24.56%	\$0.00
/arboretum/ed_tours_bigtree.shtml	137	79	00:00:55	0.00%	2.92%	\$0.00
/arboretum/ed_tours_TAKto3.shtml	120	78	00:00:36	100.00%	15.00%	\$0.00
/arboretum/ed_tours_general.shtml	103	79	00:00:19	0.00%	4.85%	\$0.00
/arboretum/ed_tours_food.shtml	92	61	00:00:44	87.50%	16.30%	\$0.00
/arboretum/ed_tours_seasons.shtml	80	60	00:00:40	33.33%	10.00%	\$0.00
/arboretum/ed_tours_cultivate.shtml	79	36	00:00:41	0.00%	6.33%	\$0.00
/arboretum/visit_groups_springfieldMillsTour.shtml	57	18	00:01:11	0.00%	8.77%	\$0.00
/arboretum/ed_tours_seedformation.shtml	54	34	00:01:32	83.33%	24.07%	\$0.00
/arboretum/ed_tours_wetlands.shtml	45	37	00:00:55	50.00%	4.44%	\$0.00
/arboretum/ed_tours_TA4to6.shtml	44	35	00:00:26	0.00%	13.64%	\$0.00
/arboretum/ed_tours_TuBShevat.shtml	41	36	00:00:13	0.00%	7.32%	\$0.00
/arboretum/ed_tours_PAEduStandards.shtml	39	19	00:00:56	0.00%	5.13%	\$0.00
/arboretum/ed_tours_seeddispersal.shtml	35	22	00:00:40	75.00%	22.86%	\$0.00
/arboretum/ed_tours_wherewelcome.shtml	35	21	00:00:20	0.00%	2.86%	\$0.00