



Morris Arboretum
UNIVERSITY of PENNSYLVANIA

Official arboretum of the Commonwealth of Pennsylvania

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Philadelphia, PA 19118

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Photo courtesy of Larry Weaner

Landscape Design Symposium

**January 16 and 17, 2014
at Temple University-Ambler Campus**

Provides an in-depth examination
of the state of the art of naturalistic
landscape design.

Brochures and registration are available in
November. Call **215-247-5777**, ext 125
or sign up on-line at

online.morrisarboretum.org/LDS



Increase your tree and
landscape knowledge!
Our courses, which offer
CEUs for arborists and
landscape architects, keep
you at the forefront of
your profession.

classes



The Morris Arboretum is proud to print on FSC (Forest Stewardship Council) certified paper, which supports the growth of responsible forest management worldwide through its international standards.



Morris Arboretum
UNIVERSITY of PENNSYLVANIA
School of Arboriculture



fall 2013 classes

Morris Arboretum of the University of Pennsylvania

is an educational institution that promotes an understanding of the important relationships between people and plants. Founded in 1887 as the private estate of John and Lydia Morris, brother and sister, the Arboretum today is an interdisciplinary center that integrates art, science, and the humanities. It is the official arboretum of the Commonwealth of Pennsylvania. It is listed in the National Register of Historic Places and is accredited by the American Association of Museums.

The 167-acre public garden, located in the Chestnut Hill section of Philadelphia, provides an idyllic setting for historical architectural features. Specialty garden areas include the Rose Garden, Swan Pond, English Park, Asian gardens, meadows, and woodlands.

Over 12,000 labeled woody plants from around the world grow here along with superior plants for urban and community landscapes. The Arboretum provides internships, school tours, adult and professional education, lectures, and other special events.

The School of Arboriculture at Morris Arboretum

offers high-quality courses designed for arborists, landscape architects and designers, urban foresters, land managers, and other tree care professionals. Classes cover a wide range of topics including climbing techniques and safety, tree identification, pest and disease problems, tree health, and land management practices. The School of Arboriculture is committed to providing first-rate educational and professional development opportunities led by world-renowned instructors and experts in the field.

Continuing Education Units

All School of Arboriculture courses carry Continuing Education Units (CEUs) for International Society of Arboriculture certified arborists. Some classes also award CEUs for Pennsylvania landscape architects, as well as pesticide update credits from the Pennsylvania Department of Agriculture. If you have questions about CEUs, please contact Jan McFarlan at 215-247-5777, ext. 156 or jlm@upenn.edu.

Emerald Ash Borer: Planning for 2014

Jean A. Scott
ISA Certified Arborist and Territory Manager, Rainbow Treecare Scientific Advancements

Jeff Picher
Technical Arboriculture Consultant, New Jersey Certified Tree Expert

Paul Bolan
Vice President, BioForest Technologies, Inc.

Learn the latest information on the battle with emerald ash borer (EAB). New tools, techniques, and materials are becoming available to aid those who need to protect ash trees in 2014 and beyond. The program will cover research from those at the front lines of the EAB invasion and provide a review of what works and how to add these tools to your program. The impact of EAB on communities and budgets will be covered and we will discuss how municipalities are dealing with the challenge. This session is geared to municipal tree managers, urban foresters, and private arborists. **This course carries 4.5 CEUs for ISA certified arborists and pesticide update credits from the PA Department of Agriculture.**

Tuesday, October 1
9 a.m. – 2:30 p.m.

Fee: \$50 (includes lunch)

Introductory Tree Climbing for Women

Rachel Brudzinski
ISA Michigan Tree Climbing Female State Champion, 2012 and Arborist Intern, Morris Arboretum

Women can be talented, successful climbers even in a field traditionally dominated by men. This course, taught by ISA state champion tree climber, Rachel Brudzinski, will demonstrate climbing techniques especially geared to female climbers. It will also provide a basic understanding of tree biology that is so critical for



practicing arborists. The class will focus on teaching women with a passion for arboriculture how to create and maintain a safe working environment, develop fundamental arboricultural skills, and learn the professional techniques necessary to develop an approach for climbing a tree. You will learn some of the latest professional tree climbing advancements and you will have the opportunity to participate in supervised in-tree climbing. This class will give you the chance to experience trees in a whole new light. Novice to advanced women climbers are welcome. Wear long pants and comfortable, hard soled shoes. If you have regulation climbing gear including a rope, harness, hardhat with chin strap, and eye protection, please bring it. You may also want to bring gloves. **This course meets at the Horticulture Center at Bloomfield Farm. Enter the Arboretum on the road opposite from the public garden entrance, Park in the lot and follow the signs to the Horticulture Center. This course carries 5.75 CEUs for ISA certified arborists.**

Wednesday, October 2
9 a.m. – 4 p.m.

Fee: \$125 (includes lunch)

Electrical Hazard Awareness, Aerial Rescue, and Chain Saw Safety

Gary Lovallo

New Jersey Certified Tree Expert #273

Jon Hanbicki

New Jersey Certified Tree Expert #354

Al Saharic

Electrical Safety Instructor, Retired Electric Lineman

Proper tree felling techniques and job site safety will be covered in this class. We will focus on the Electrical Hazards Awareness Program (E.H.A.P.) and aerial rescue. We will cover the critical safety precautions that must be taken when performing tree work in close proximity to electrified wires. The identification and distinction between voltages carried in distribution and transmission lines will be emphasized along with the ANSI standards that apply to this work. The effects of live current will be demonstrated by the instructors. You will have the chance to see an in-the-field demonstration of aerial rescue techniques. Each student will have a “hands on” opportunity to practice safe lowering methods. The safe operation and maintenance of chain saws will be demonstrated in the field by experienced arborists. Each participant will have an opportunity to use a chain saw to make practice cuts. **Students should come equipped with chaps, a hard hat, ear plugs, work gloves, and steel-toed work boots. On both days this course meets at the Horticulture Center at Bloomfield Farm. Enter the Arboretum on the road opposite from the public garden entrance. Park in the parking lot and follow the signs to the Horticulture Center. This course carries 11.5 CEUs for both days for ISA certified arborists. Due to the hands-on nature of the class, the size is limited.**

Thursday, Friday

October 10, 11

9 a.m. – 4 p.m.

Fee: \$250 (includes lunch)

New Field Techniques for Tree Evaluation

Jerry Bond

Consulting Urban Forester, Urban Forestry LLC

Jerry will explain new field protocols for obtaining quick and reliable estimates of tree condition and tree load potential. The morning session will examine an estimating method that uses six defined parameters to determine tree condition. This method will then be practiced in an outdoor exercise. After lunch, we will consider tree load, a topic important for risk assessment. Participants will learn an easy technique to determine the load potential for trees and their parts. An outdoor exercise will put this knowledge into practice and will be followed by a discussion of actual case studies. **This course carries 5.75 CEUs for ISA certified arborists. We will meet at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

Thursday, October 17

9 a.m. – 4 p.m.

Fee: \$135 (includes lunch)

Introductory Tree Climbing

Zac Shechtman

Owner, Shechtman Tree Care

Rob Thigpen

Foreman, Shechtman Tree Care and ISA Penn-Del Chapter Climbing Champion

This class provides an introduction to tree climbing and features the opportunity to have supervised climbing instruction in trees. It is ideal for tree companies looking to advance promising groundsmen, or gardeners and landscapers looking to get off the ground. Effective methods for climbing trees will be demonstrated by instructors and practiced by students. Safety rules will be reviewed and stressed. Students will learn how to tie critical knots regularly used by arborists. Included in the fee, each student will receive a copy of *The Tree Climbers Companion*, by Jeff Jepson, a great resource for climbers. **Bring an arborist's**

rope and saddle, a hard hat, gloves, safety glasses, and insect repellent to the class. **Wear boots, long pants, and dress for the weather. This course carries 17.25 CEUs for ISA certified arborists. We will meet at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

Tuesday, Wednesday, Thursday

October 22, 23, 24

9 a.m. – 4 p.m.

Fee: \$525 (includes lunch)

Pruning Deciduous Trees

Iana Turner

Horticulturist, Morris Arboretum

Pruning young trees for healthy structural development is cost-effective care. This class will explain how recent research on pruning has changed both practice and understanding. Pruning strategies for trees of different ages will be stressed to maximize tree longevity and structural health. In addition, techniques will be discussed to help tree managers evaluate the arboricultural work of others under their supervision. The morning will consist of a lecture and demonstration. The afternoon will feature supervised, hands-on pruning. **Please bring a hand pruner and a small pruning saw. This course carries 4.75 CEUs for ISA certified arborists.**

Wednesday, October 23

9 a.m. – 3 p.m.

Raindate: Friday, October 25

9 a.m. – 3 p.m.

Fee: \$120 (includes lunch)

Climate Change and Sea Level Rise: Predicting the Effects

Dr. Benjamin Horton

Professor, Rutgers University School of Environmental and Biological Sciences

Dr. Anton Nelessen

Chair, Department of Urban Planning, Rutgers University

Climate change and sea level rise on the East Coast are the focus of this day-long symposium. One of the primary challenges in studying climate change is reconstructing its history. Scientists must understand the past to have a better sense of the causes and effects of future changes. One of these effects, which can have serious societal consequences, is sea-level rise. Hotter climate temperatures mean higher seas. This could spell disaster for coastal communities the world over. Predicting the rate and magnitude of global sea-level rise, as well as its local effects, is a high priority. This is an issue that will have a profound effect upon urban planning and design in some of these threatened communities. Dr. Ben Horton, will present research findings from his work with the Sea Level Research Lab at the University of Pennsylvania. Dr. Anton Nelessen will discuss how the threat of rising sea has impacted his design work in communities such as Hoboken N.J. and will show a film on the effects of climate change and sea level rise in Belize and Alaska. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

Wednesday, October 30

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch)



Tools and Techniques of Modern Arboriculture

Steven Chisholm, Jr.

President, Aspen Tree Expert Company, Inc.

Diagnosis of tree disorders and identification of potential threats and hazards is one of the most challenging aspects of arboriculture. Alex Shigo's admonition "prescription without diagnosis is malpractice" compels us to always do the very best job that we can to make a proper assessment and diagnosis of the conditions that we are presented with. In the last 10 to 20 years there have been a wide variety of new tools and techniques that have been developed. These include resistographs and sonic tomography techniques, as well as the use of air spades for root crown excavation. Steve Chisholm, Jr. is a third generation New Jersey arborist with a strong background as a working arborist. He is the immediate past president of the Society of Commercial Arboriculture, Past President of the NJAISA (New Jersey Arborists of the International Society of Arboriculture) as well as chapter liaison for The Tree Fund. Steve will help us to approach plant disorder problems in a systematic fashion and introduce us to a variety of new tools that may be of assistance in our work. **This course carries 5.75 CEUs for ISA certified arborists.**

**Thursday, October 31
9 a.m. – 4 p.m.**

Fee: \$125 (includes lunch)

Understanding Trees as Complex Biological Systems

David Tukey

Neighborhood Coordinator, West Mt. Airy Street Tree Planting

Trees are dynamic systems of complex, interrelated biological processes. The better we understand these processes, the better we as arborists can promote tree health, beauty, and longevity. After covering the basics of tree anatomy and biology, this workshop will consider a series of questions about how a tree accomplishes various tasks such as growth,

nutrient transport, and defense against decay, as well as impacts of tree care such as pruning and fertilizing. Along the way, we will explore findings from recent research and areas where science is less clear about how a tree functions. The information will have practical implications for arborists, both new and seasoned, while also enabling them to better explain their recommendations to clients. **We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center. This course carries 5.75 CEUs for ISA certified arborists.**

**Saturday, November 2
9 a.m. – 4 p.m.**

Fee: \$135 (includes lunch)

Mobile Crane Operator Training and Certification

Larry DeMark, Sr.

President, Equipment Training Solutions

In recent years OSHA has recommended a series of new regulations regarding the operation of cranes that will require all crane owners and operators to become certified by the National Commission for the Certification of Crane Operators (NCCCO). This will have a profound effect on arborists in the Philadelphia region who offer tree removal with a crane as part of their service. Compliance will involve completion of a certification process that is administered by the NCCCO and the International Assessment Institute. The certification process includes the successful passing of a 90 question written core exam, a 26 question written fixed cab telescopic exam, and a practical examination. Larry DeMark, Sr., co-owner of Equipment Training Services, LLC (ETS), which is an NCCCO recognized training provider, will administer this three-day course that will lead to certification upon passing the two written examinations on the final day and the practical examination. Students are expected to arrive having studied the training material that will be provided in

advance. **This course carries 17.25 CEUs for ISA certified arborists.**

**Monday, Tuesday, Wednesday
November 4, 5, 6
9 a.m. – 4 p.m.**

Fee: \$1,650 (includes lunch)

Advancing Your Climbing Skills: Pruning, Rigging, and Removal with a Crane

Zac Shechtman

Owner, Shechtman Tree Care

Rob Thigpen

Foreman, Shechtman Tree Care and ISA

Penn-Del Chapter Climbing Champion

This class, taught by experienced professionals, consists of three days of advanced arboricultural techniques.

November 11: Practical Pruning

The first day will focus on the theory and practice of large tree pruning, including a component on tree physiology, structural pruning, and the latest ANSI standard. Each student will receive a copy of the ANSI Z133.1 standards and will have the opportunity to climb a tree for supervised instruction.

November 12: Rigging for Removal – The Old Fashioned Way

This class will focus on the techniques and gear involved in the process of safely lowering wood as part of the removal process. Each student will have an opportunity for hands-on experience using proper rigging techniques to safely lower wood from a standing trunk. Proper use of the latest equipment as well as the critical knots involved will be demonstrated. Safe felling techniques will also be demonstrated.

November 13: Crane Use and Safety

The last day of this course will consist of instruction and demonstration of the safe use of a truck mounted crane for tree removal. Emphasis will be given to site selection, weight calculation, load distribution, and safe cutting techniques.

Each student will receive a copy of *How to Fell a Tree* by Jeff Jepson, a book with step-by-step methods for taking down a tree. **This course carries 17.25 CEUs for ISA certified arborists. We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

**Monday, Tuesday, Wednesday
November 11, 12, 13
9 a.m. – 4 p.m.**

Fee: \$525 (includes lunch)

Physical and Cultural Geography of the Pinelands National Reserve

Mark Demitroff

Pinelands Geographer, Department of Geography, University of Delaware

In the midst of megalopolis lies nearly a million-and-a-half acres of treasured urban wilderness known as the New Jersey Pine Barrens. This session provides a natural science-based overview of how to read both the environmental and human landscapes of this land, long lauded for its uniqueness by the scientific community. Climate-driven movement of frozen and thawing ground, along with strong winds from the nearby Laurentide Ice Sheet, helped to fashion the local terrain into the place that we value today. Unusual landforms provide critical habitat for rare, threatened, and endangered plants and animals. People have exploited its forest resources for over 14,000 years. Their story will be woven together in a geographic tapestry of interactions between nature and society, with emphasis on the region's



unusual flora. This great wilderness provided the raw materials needed for America's rapid industrialization, and since 1850 offered sanctuary to ethnic settlers who sought security by taming an impoverished land while overcoming social intolerance.

This class carries 5.75 CEUs for ISA certified arborists.

**Tuesday, November 12
9 a.m. – 4 p.m.**

Fee: \$135 (includes lunch)

Field Identification of Landscape Trees

Ken LeRoy

*Certified Arborist Representative,
John B. Ward Tree Experts*

Join us for a two-day class on the identification of woody landscape plants for urban and suburban landscapes. The class will cover both deciduous trees and conifers. Arborist and horticulturist, Ken LeRoy, will show us how to use a dichotomous key to identify plants and will explain the terminology used in keys to describe plant characteristics. He will also discuss the physical characteristics used to group plants into families. We will go on a tour of the Morris Arboretum to see specimens of the plants we discuss. You may want to purchase the *Sibley Guide to Trees*, available in the Arboretum bookstore, and a good reference for tree identification. Please dress for the weather. **This course carries 11.5 CEUs for ISA certified arborists and 6 CEUs for Pennsylvania landscape architects. We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

**Thursday, Friday
November 14, 15
9 a.m. – 4 p.m.**

Fee: \$270 (includes lunch)



Restoration Ecology

William Young

President, Young Environmental Services

Kevin Smarz

*Graduate student, School of Design,
University of Pennsylvania.*

During the last 25 years, restoration ecology has emerged as a separate field of ecology. It can be thought of as the practice of renewing and restoring degraded, damaged, or destroyed ecosystems by active human intervention, design, and action. This symposium will bring together two noted experts in this field to discuss some of the background and techniques involved in approaching restoration projects. We will look at the process of site evaluation, natural resource inventory and assessment, soils and contaminants, as well as various restoration techniques. This course will be of particular interest to land managers, designers, landscape contractors, and anyone who is charged with the renewal of a degraded site.

Mr. Young is past President of the New Jersey Native Plant Society as well as a lecturer at the University of Pennsylvania. He has an extensive contracting background with a wide variety of wetland restoration projects

throughout the United States. Mr. Smarz has a background in biogeochemistry and ecology and works as a restoration specialist for USA Environmental. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

**Thursday, November 21
9 a.m. – 4 p.m.**

Fee: \$125 (includes lunch)

Diagnosis and Identification of Plant Disorders

Richard Buckley

*Manager, Plant Diagnostics Laboratory,
Rutgers University*

Join us as New Jersey's premier plant diagnostician leads us on a day of discovery. This session will present an overview of the major causes of abiotic and biotic plant disorders in North American woody stemmed plants. Biotic plant problems are caused by living organisms, such as fungi, bacteria, viruses, nematodes, insects, mites, and animals. Abiotic disorders are caused by non-living factors, such as drought stress, sunscald, freeze injury, wind injury, chemical drift, nutrient deficiency, or improper cultural practices, such as overwatering or planting too deeply. Unfortunately, the damage caused by these various living and non-living agents can appear very similar. A systematic approach to the identification of environmental, fungal, and bacterial causes of plant disorders and diseases will be considered along with common sense approaches to their control. **This course carries 5.75 CEUs for ISA certified arborists.**

**Friday, November 22
9 a.m. – 4 p.m.**

Fee: \$135 (includes lunch)

Redesigning Landscapes in the New Urban Environment

Dr. Anton Nelessen

*Department Chair, Urban Planning, Policy
and Public Health, Rutgers University*

As cities today work to become more energy and resource efficient, urban planners project an upswing in their growth and renewal. An important part of the planned urban environment is its designed public gardens and plantings. Thoughtful use of valuable space in the city environment is an important skill for any architect, designer, contractor, or planner. Join us as world famous urban planner, Anton Nelessen, guides us through the planning and design process. Dr. Nelessen will familiarize us with the Visual Preference Survey process that he developed. There will also be a hands-on design segment of this seminar in the afternoon. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

**Thursday, December 5
9 a.m. – 4 p.m.**

Fee: \$125 (includes lunch)



general class information

The Morris Arboretum is located in the Chestnut Hill section of Philadelphia. For further information or directions, call (215) 247-5777 or check the Arboretum website at www.morrisarboretum.org. Go to “Plan your Visit.”

The Green Choice

We need your input. In the interest of sustainability, if you would like to opt out of receiving our course brochure, please e-mail us at education@morrisarboretum.org with the subject line, "Opt out." We always offer the fall course brochure on our website under Education tab.

Location of Classes

All classes will be held at the George D. Widener Visitor Center unless otherwise noted. Parking areas may be reached by entering the Arboretum off of East Northwestern Avenue. Students should arrive at least ten minutes before the start of the class to allow time to check in.

Refund and Cancellation Policy

In order to receive a refund for a class you must call (215) 247-5777, ext. 125 at least two business days before the class start date. The Arboretum reserves the right to cancel any program if necessary. Refunds take approximately 3 to 4 weeks to process. There will be no refunds after a class begins.

Weather Information

In case of inclement weather conditions on the day of your class, please call the Education Department, (215) 247-5777, ext. 156, for information on possible cancellation or rescheduling of the class.



registration form

Course Title and Names of Attendees	# Students	Date	Fee
Field Identification of Landscape Trees			
Dave Simon & Jane Smith	2	11/14/13	\$270
Total Enclosed			

To register online, visit <https://online.morrisarboretum.org/arboriculture>.

To register by mail, send this form along with check payable to the

"Morris Arboretum" to:

Education Department
Morris Arboretum
100 East Northwestern Avenue
Philadelphia, PA 19118-2697

To register by phone, have your credit card ready.

Call the Education Dept. (215) 247-5777, ext. 125.

Payment Information

Name _____

Company Name_____

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