

## DAY 1: Tuesday April 3, 2018

### 8:30-9:05 How Trees Grow and Function: Roots

**Dr. Ed Gilman, UF Professor Emeritus**

Trees become a lasting resource only when they develop good root architecture. Roots must be managed appropriately when trees arrive at the planting site and are planted into the landscape. Learn how root management in the first 25 years after planting results in a sustainable urban forest that resists storms. Practical solutions to tree/sidewalks issues are shown.

### 9:05-10:00 How Trees Grow and Function: Shoots

**Dr. Ed Gilman, UF Professor Emeritus**

Take an in-depth journey inside trees to understand how they work! Xylem, phloem, parenchyma, branch protection zone, reaction zones: where are all these parts and what do they do? We will take the complex and transform it into the understandable so you make scientifically sound arboriculture decisions. You will come away from this session with a new confidence as to why and how your treatments work. It is quite simple when you understand what happens inside the tree.

### 10-10:15 Break

### 10:15-11:00 Tree Response to Injury & Stressful Environments

**Dr. Ed Gilman, UF Professor Emeritus**

People heal, trees don't. Compartmentalization of dysfunction and decay inside the tree is the mechanism by which trees defend themselves. Learn how different species respond when they are injured with trunk wounds, large pruning cuts, storms, and more. Come away with the ability to predict tree response and apply treatments which are biologically sound.

### 11:00-11:45 Tree Structure and Response to Storms

**Dr. Ed Gilman, UF Professor Emeritus**

Ever wondered how and why most trees remain intact while others break apart? Have you heard about damping but don't really know what it is or how to use the concept? You will come away from this detailed treatise on tree structure with the ability to explain why you provide certain treatments to your customers' trees. This instills confidence in your arboricultural understanding and empowers you to make the sale. Communicate basic bio-mechanical principles, prescribe arboricultural treatments consistent with structural defects, apply appropriate terminology.

### 11:45-12:00 Questions and Answers

### 12:00-1:00 Lunch (provided)

### 1:00-1:45 Soils: The Foundation for Healthy Trees

**Norm Easey, Florida Chapter ISA**

In this session you will learn what makes a healthy soil and why it is important. Urban trees often live in confined spaces so it is critical to make those small spaces as productive as possible. This session will teach you how to assess soil and how to make improvements when needed.

### 1:45-2:30 Nursery Stock-Growing and Specifying

**Dr. Ed Gilman, UF Professor Emeritus**

When a process can be simplified, we understand it. Practices that lead to strong root systems must begin in the nursery, and there is brand new information on how to do this. Generate trunk caliper and branches quicker on a central leader. New research and experience in the last five years points to simple methods of determining nursery plant quality. Access schematics of high quality nursery stock along with free .dwg files showing details and specifications.

### 2:30-2:45 Break

### 2:45-3:30 Planting and Establishment

**Dr. Andrew Koeser, UF-GREC**

We will review the newly developed 70+ CAD-editable (.dwg) and .pdf files showing detailed elevations, plan views, and schematics of every imaginable planting situation reviewed by a national team. Plus, there are four detailed, comprehensive, editable specifications for soil preparation, planting, tree preservation and irrigation. We will discuss how you can use this package to enhance your efforts in providing science- and experience-based tree care when planting and establishing trees. A tree planting demonstration will take place.

### 3:30-4:15 Fertilization

**Dr. Tom Smiley, Bartlett Tree Experts**

Nutrients are essential for plant growth and development. This session will discuss the essential elements required by plants, symptoms of nutrient deficiencies, how to sample soils for nutrient content and how to correct nutrient deficiencies.

### 4:15-4:30 Wrap up Day 1

## JOIN US FOR 2 FULL DAYS

- For the novice *and* the experienced professional
- Arboriculture immersion
- Understand trees from roots to shoots
- Limited engagement
- Class is for 2 full days
- Limited class size (80 seats)

**APRIL 3 AND 4, 2018 - ORLANDO**

**UF-IFAS ORANGE COUNTY EXTENSION**

**6021 S Conway Rd, Orlando, FL 32812**

**EARN CEUs:** ISA - 13.25 BCMA - 2(M) 8(P) 3.25(S)  
FNGLA - 8 LIAF - 8

## LEARN FROM OUR EXPERTS

### DR. A.D. ALI, Davey Tree Expert Company

Dr. A.D. Ali has over 25 years experience in the Green Industry. As a Senior Scientist within the Technical Services group at the Davey Institute, he provides technical support, conducts applied research, writes technical reports and is an Instructor in the Davey Institute's arboriculture & lawn care courses. He also provides Horticultural Sciences consulting services including plant problem diagnosis and landscape management. Dr. Ali is currently a Board Certified Master Arborist.

### NORM EASEY, Florida Chapter ISA

Norm Easey has been active in urban forest management and arboriculture in Florida since receiving his bachelors' degree in Forestry/Resource Management in 1980 from the University of Wisconsin. He is currently the Chief Executive Officer of the Florida Chapter ISA. He was the Forestry Manager for Sarasota County, Florida for 18 years as well as having been a County Forester with the Florida Forest Service. Norm also currently has a part-time urban forestry consulting practice; he specializes in tree risk assessment & urban forest management.

### DR. ED GILMAN, UF Professor Emeritus

Dr. Gilman was on the faculty since 1984 as professor in the Environmental Horticulture Department at the University of Florida in Gainesville. He received honorary membership in ASLA in 2016. Ed wrote "Illustrated Guide to Pruning" plus five other books. He received the Authors Citation Award in 1999, the Educators Award in 2003, the research award in 2007, and the Award of Merit in 2016 from ISA. He has published more than 120 scientific peer reviewed journal articles on roots, planting, & pruning trees in his 35 years in academia and industry. Ed has conducted more than 800 presentations to professional groups throughout his career.

### DR. ANDREW KOESER, UF-GREC

Dr. Andrew Koeser is an assistant professor who heads the Urban Tree and Landscape Management lab at the University of Florida Gulf Coast Research & Education Center near Tampa, Florida. Andrew is a ISA Board-Certified Master Arborist. Prior to completing his doctoral studies, Andrew worked at the International Society of Arboriculture. Andrew is the author of Trees: North and Central Florida & Trees: South Florida and the Keys, visual tree identification guides. Andrew was awarded the ISA Early Career Scientist Award at the 2015 ISA Annual Meeting in Orlando.

### DR. THOMAS SMILEY, Bartlett Tree Experts

Dr. Tom Smiley is an arboricultural researcher at the Bartlett Tree Research Laboratory in Charlotte, NC and an adjunct professor of Urban Forestry at Clemson University. Dr. Smiley is active in the arboriculture industry and has co-authored the ISA's Best Management Practices for Tree Risk Assessment, Lightning Protection, Fertilization, Support Systems, Soil Management and Construction Management. His research has led to improved methods of increasing sidewalk longevity near trees, protecting more trees from lightning damage, improving tree root growth in compacted soil using the patented Root Invigoration process, and predicting tree failures.

### DR. JASON SMITH, UF-Forestry Resources and Conservation

Dr. Jason Smith is assistant professor of forest pathology in the School of Forest Resources and Conservation at the University of Florida. Jason conducts research and extension programs on diseases of trees and forest health. His research includes disease diagnosis, biology/epidemiology and developing disease-resistant trees. Before coming to Florida in 2006, Jason was a postdoctoral research associate in the Department of Plant Pathology at the University of Minnesota.

## DAY 2: Wednesday April 4, 2018

### 8:00-9:00 Evaluating Risk in Trees

**Dr. Andrew Koeser, UF-GREC**

Tree risk assessment is an essential component for anyone who cares for trees. Trees telegraph failures prior to occurring. This session will introduce you to the fundamentals of tree risk assessment.

### 9:00 -10:00 Industry Standards: Cabling, Lightning Protection, Pruning and More

**Dr. Tom Smiley, Bartlett Tree Experts**

In the United States the arboriculture practices we perform are governed by standards that are developed by the American National Standards Institute A300 committee. This session will discuss why you need to know about standards, how standards are developed, how you can contribute to them and present some of the highlights of the current governing standards.

### 10-10:15 Break

### 10:15-11:00 Diagnostic Process

**Dr. A.D. Ali, Davey Tree Expert Company**

"Treatment without diagnosis is malpractice". This session will discuss the diagnostic process used for landscape plants. It will include how to conduct a field diagnosis, how to collect samples for further diagnosis, and submitting samples. The principles of Integrated Pest Management will also be discussed.

### 11:00-12:00 Identification and Management of the Major Insects That Impact Trees

**Dr. A.D. Ali, Davey Tree Expert Company**

There is a plethora of arthropods (insects, mites, and their relatives) in the landscape that affect trees. Learn how to identify pests by the type of feeding damage and how to manage them. In addition, there is a variety of beneficial insects that attack pest insects and mites. This session will show you how to distinguish the Good Gals from the Bad Guys.

### 12:00-1:00 Lunch (provided)

### 1:00-2:00 Fundamentals of Tree Disease Concepts

**Dr. Jason Smith, UF Forest Resources & Conservation**

Diagnosing tree disease can be a difficult process. Play "detective" with Jason as he discusses how to assess symptoms and signs of tree diseases from the foliage to the stems and to the roots - blight, rust, galls, cankers, wilt and decay.

### 2:00-3:00 Young Tree Pruning

**Dr. Ed Gilman, UF Professor Emeritus**

Trees can be pruned to prevent problems from occurring and anticipate future growth. It should start when trees are planted! Recent research and advancements in treatments can provide for healthier, longer lived trees. Preventive arboricultural treatments for young trees shown to increase tree health and longevity will be presented with many examples. This will include a pruning demonstration outdoors.

### 3:00-3:15 Break

### 3:15-4:15 Mature Tree Pruning

**Dr. Ed Gilman, UF Professor Emeritus**

Pruning plays a major role in a tree's longevity. Pruning the correct live branches can have a dramatic impact on how trees respond to gravity, wind, and storms. This could make you a hero after the next storm sweeps through your area. Structural pruning, designed to reduce growth rate and weight on co-dominant limbs, is the most effective method of minimizing damage from increasingly harsh weather conditions. We'll show you why and how to make your case to the customer. You will also learn to write pruning specifications!

### 4:15 Adjourn and Sign for CEUs

Please dress for your comfort level; we cannot always control the room temperature to suit everyone.



**SPACE IS LIMITED TO 80 ATTENDEES**

# TREE SCHOOL: An Applied Arboricultural Short Course

**2 FULL DAYS: April 3 and 4, 2018**  
**ORLANDO: UF-IFAS Orange County Extension**  
**6021 S Conway Rd, Orlando, FL 32812**

CEUs: ISA - 13.25 BCMA - 2(M) 8(P) 3.25(S) FNGLA - 8 LIAF - 8

DEVELOPED FOR arborists, urban foresters, consultants, landscape architects, landscape contractors, horticulturists, nursery operators, HOA managers.

Interact with some of the finest educators in the country in their chosen field of expertise and bring home new skills you can use next week in your place of business. The course is designed for landscapers, contractors, landscape architects, consultants, arborists, urban foresters, nursery operators, Master Gardeners, HOA managers and anyone in the green industry desiring to enhance their understanding of how trees work and what treatments are appropriate.

Indoor presentations will be enhanced by outdoor field exercises and demonstrations where appropriate. Some hands-on experiences will be available. Attendees will see and touch common and new tools used in many aspects of arboriculture. You will come away from this in-depth experience with a new insight into how trees work and why treatments work.

Novices and experts are welcome. Whether you are a beginner with little tree knowledge or an experienced arborist, you WILL come away with a replenished understanding of trees. There will be plenty of new information. We focus on the scientific basis of tree care and will offer all the latest technology and approaches to solving complex tree challenges. This course will also aide those wishing to take the ISA Certified Arborist exam.

**\* GROUP DISCOUNT!** Register 5 people, the 6th person attends FREE!

1 _____	2 _____
3 _____	4 _____
5 _____	6 FREE _____
Member Number (to get mem pricing) _____	Company _____
Address _____	City/State/Zip _____
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Email (needed for sending a receipt and a class reminder) _____	

\_\_\_\_\_ # of vegetarians in your group

ISA Members & Guests . . .	\$325 each x _____	= \$ _____	(up to 5 guests at member rate)
Non-member. . . . .	\$365 each x _____	= \$ _____	

**LATE REGISTRATION FEES** begin on March 30th at midnight: ADD \$40/person for 2-day event and **CALL 941-342-0153** to register.

**ALL AT-THE-DOOR REGISTRATION FEES** IF AVAILABLE - call first to check: \$400/person

Cancellation refunds honored if requested 7 days before each seminar. Attendee substitutions will be honored.

**Register online**, Link at: [www.floridaisa.org](http://www.floridaisa.org)

**Register by mail:** Florida Chapter ISA 7853 S Leewynn Court - Sarasota, FL 34240  
FEIN #65-0667299

**Register by fax:** 941-342-0463

**Questions? Call:** 941-342-0153

**Credit Card Information: Print clearly, all information is required**  
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**NEW!**

# TREE SCHOOL: An Applied Arboricultural Short Course

*a 2-day in-depth experience*

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**FNGLA - 8 LIAF - 8**

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LIMITED TO 80 ATTENDEES

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