



WINTER TECH 2019

COURSE OFFERINGS & DESCRIPTIONS

MONDAY – JANUARY 21st

Foundations of Landscape Irrigation Design- 2 DAYS

Monday, January 21 & Tuesday, January 22

8:00am-5:00pm BOTH DAYS (must attend both days)

Description: Master the basics of irrigation design. Developed by IA instructors with years of teaching experience, this beginner reference focuses on designing a simple residential or small commercial system. Organized to follow the typical design process, topics include gathering site information, calculating system capacity, soil-water-plant relationships, pipe sizing, hydraulics, head layout, uniformity, zoning and plan presentation. This course has been completely refreshed and offers 16 credits including 8 in water conservation. Please note that this is a two day class – you must attend both days to receive certificate of completion. **DESIGN LEARNING TRACK**

Instructor: Roy Nau

16 CECs TOTAL

(8 General and 8 Water Conservation)

Backflow Re-Certification Review Training & Testing

Monday, January 21 - 8:00am-5:00pm (1 hour break for lunch)

Tuesday, January 22 – 8:00am EXAM ONLY

Description: If you don't need a full backflow course but just need to take the one-day refresher and/or to take the re-certification test, this is the session for you. Registration for this course includes the full day of practical training and review, and also the EXAM component. The Backflow Exam will be given on Tuesday morning from 8am – 12N in the same location. You are automatically registered to take the exam by registering for this course. The FEE for this course includes the 8 hour training course on Monday, as well as the exam on Tuesday and any fees for recertification. You will not need to pay additional fees to NEWWA for recertification. **CERTIFICATION LEARNING TRACK**

Instructor: NEWWA

8 CECs

Landscape Irrigation Technician Course – 1.5 Day Course

Monday, January 21 - 8:00am - 5:00pm (1 hour break for lunch)

Tuesday, January 22 – 8:00am – 12:00pm

Tuesday, January 22 – 1:00pm – 5:00pm – CIT EXAM TIME

Description: This Irrigation Association course is a **one and a half day course** for contractors new to the landscape irrigation industry. Students will become familiar with landscape sprinkler system components and terminology and understand the basics of system component installation. This course also serves as a preparation course for those taking the Certified Irrigation Technician exam. **NOTE – This course is 1.5 days (12 hours) – this change was made by the IA to allow for more preparation for those taking the exam in an effort to increase success rates. CERTIFICATION LEARNING TRACK**

Instructor: Chris Pine

12 CECs

(6 Water Conservation, 6 General)

Exam Proctor: Chris Pine

IMPORTANT: The Certified Irrigation Technician (CIT) EXAM is a separate component of the course. **THERE IS AN ADDITIONAL COST FOR THE EXAM.** You can register to take the 1.5 day class only to earn CECs; however, if you plan to take the exam, you must register and pay an additional \$175 (exam fee) on the IA site (Irrigation Association – National organization who oversees this certification). The CIT Exam will be given on Tuesday, January 22nd from 1:00pm – 5:00pm in the same location and will only be open to those who have pre-registered at the link below. Link to register/pay for the exam: <https://store.irrigation.org/events/registration.aspx?event=CNJJAN19>



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TUESDAY – JANUARY 22nd

Foundations of Landscape Irrigation Design- 2 DAYS

Monday, January 21 & Tuesday, January 22

8:00am-5:00pm BOTH DAYS (*must attend both days*)

Description: Master the basics of irrigation design. Developed by IA instructors with years of teaching experience, this beginner reference focuses on designing a simple residential or small commercial system. Organized to follow the typical design process, topics include gathering site information, calculating system capacity, soil-water-plant relationships, pipe sizing, hydraulics, head layout, uniformity, zoning and plan presentation. This course has been completely refreshed and offers 16 credits including 8 in water conservation. Please note that this is a two day class – you must attend both days to receive certificate of completion. **DESIGN LEARNING TRACK**

Instructor: Roy Nau

16 CECs TOTAL

(8 Regular and 8 Water Conservation)

Using Irrigation Association Best Management Practices to Manage Water

Tuesday, January 22

8:00am – 5:00pm

This brand new class is a compilation of several prior classes on the topic – a “best of”, if you will. The class will use the IA BMPs as its framework, but will also address a wide range of the many ways to think about water conservation in the landscape. **MAINTENANCE LEARNING TRACK**

NEW CLASS

8 CECs (**Water Conservation**)

Instructor: Ted Moriarty

Protect Yourself By Avoiding Legal Landmines:

One Contractor’s Views On Contracts, Licensing & Other Legal Dealings

Tuesday, January 22

8:00am – 12:00pm

Description: This course is designed to showcase the details necessary to not run afoul of our Landscape Irrigation Licensing law and NJ Consumer laws such as the Home Improvement Contractor's Act. It will be interactive and participants are encouraged to bring in their current contracts as a workbook exercise to see where they can improve the content by noting step by step whether they are in compliance with existing law. It will also cover permits, fees and other issues that relate directly to irrigation contracting. **BUSINESS LEARNING TRACK**

NEW CLASS

2 CECs

Instructor: John Raffiani

What NJ Contractors Need to Know: New Jersey Specific Irrigation Topics

Tuesday, January 22

9:00am – 12:00pm (*this is a 3 hour class*)

Description: The goal of this class is to discuss items specific to New Jersey that all Landscape Irrigation Contractors should know. Questions specific to New Jersey constitute 6 to 7% of the questions on the Certification exam. Topics to be reviewed include: NJ Certification Act of 1991, NJ Sales Tax, NJ Contractors Registration Act, The Electrical Contractors Licensing Act of 1962, Subsurface and Percolating Water Act, and the Public Works Contractor Registration Act. **CERTIFICATION LEARNING TRACK**

NEW CLASS

3 CECs

Instructor: Art Elmers

Dripline Installation - Design Considerations and Methods for Various Situations

Tuesday, January 22

1:00pm – 5:00pm

Description: A course for the beginner to intermediate contractor or installer covering hedges, hills, planting beds and turf. Learn the design basics and how to correctly program your drip lines by soil type, soil intake rate and precipitation rate. **DESIGN LEARNING TRACK**

4 CECs (**Water Conservation**)

Instructor: John Raffiani



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TUESDAY – JANUARY 22nd - continued

Hydraulics Workshop

Tuesday, January 22

2:00pm – 5:00pm (*this is a 3 hour class*)

Description: We all think we know hydraulics and can calculate the water pressure at any point on an irrigation design. Even if you can, this 3-hour workshop will review the theories and formulas needed in the Irrigation world today. We will even talk about looped-main calculations. Topics to be discussed include determining friction loss through pipe and fittings, the relationship between Flow and Pressure, the effect of elevation, determining friction loss through valves, filters and other devices, the effect of design on friction loss, and looped mains. If anything else, this workshop will give you the practice we all need to stay sharp when thinking hydraulics. **DESIGN LEARNING TRACK**

NEW CLASS

3 CECS

Instructor: Art Elmers



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WEDNESDAY – JANUARY 23rd

Plant, Soil & Turf Types and the Implications for Irrigation Contracting
Wednesday, January 23
8:00am – 12:00pm

A deep dive into the Soil, Plant and Air continuum with products to recommend, scheduling tips, plant selection and learning to "talk the talk" so that your client is onboard with your proposals. Irrigation-based solutions that conserve water are emphasized. **DESIGN LEARNING TRACK**

Instructor: John Raffiani
4 CECs (*Water Conservation*)

Irrigation Scheduling Made Simpler
Wednesday, January 23
8:00am – 12:00pm

This is a new class using a different approach to schedule irrigation properly so that only the appropriate amount of water is used. The class will be very light on formulas and math, and more focused on new apps, scheduling spreadsheets available online, and navigating through weather-based controller programming. **DESIGN LEARNING TRACK**

NEW CLASS
4 CECs (*Water Conservation*)
Instructor: Ted Moriarty

Electrical Troubleshooting: Field Wiring Diagnostics
Wednesday, January 23
8:00am-12:00pm

Description: Save time and money with this practical course in electrical troubleshooting. This four hour class covers diagnosing field wiring problems and proper use of volt-ohm meters. Learn to systematically assess and resolve even the most confusing electrical problems. **MAINTENANCE LEARNING TRACK**

NEW CLASS
4 CECs
Instructor: Craig Borland

Managing a Landscape Irrigation Service Company: Water Mgmt and Technology
Wednesday, January 23
8:00am-12:00pm

Description: Description: This class will help one develop an understanding of the relevant differences between an installation and a service business. We will look at how today's service business has changed dramatically into a "landscape water management business" and develop the tools needed to implement these services. We will also explore the many ways technology impacts this type of business from new controllers to the software and systems for managing a service company. **BUSINESS LEARNING TRACK**

2 CECs
Instructor: Chris Pine

Navigating The HOA Maze: Do's & Don'ts
Wednesday, January 23
1:00pm – 5:00pm

Description: The course will first address the business side of dealing with Boards and Management Companies with an emphasis on gauging their needs, available budgets and current water usage. It will then move into collating water use data from billings and if available flow meters. From there the upselling part of the course begins with real life planning and examples of various improvements to be made that have saved millions of gallons of water at some of the multiple large HOAs that I have installed and/or maintain. The course will be full of water conserving ideas and programming tips to implement as well as other related improvements. This is a market that traditionally has some of the poorest and most inefficient examples of irrigation systems (AKA "Builder's Systems") to be had anywhere. They waste copious amounts of water, provide poor benefits to the landscape and many are illegally serviced by unlicensed landscape firms. Demonstrating the money to be saved by improving these systems with trained irrigation professionals will benefit all parties concerned.

NEW CLASS
Instructor: John Raffiani
4 CECs (*Water Conservation*)



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WEDNESDAY – JANUARY 23rd - continued

LEED and Green Codes

Wednesday, January 23

1:00pm – 5:00pm

This class explores the various green building programs and codes which are becoming increasingly prevalent, and are having a direct impact on landscape irrigation. Topics include the background and development of these codes and programs, what is presently out there, what the future may hold and a close look at what the impact will be on our business. Strategies to comply with green codes and how to advocate for a fair impact on our industry will also be discussed. **DESIGN LEARNING TRACK**

4 CECs (*Water Conservation*)

Instructor: Ted Moriarty

Advanced Electrical Troubleshooting

Wednesday, January 23

1:00pm-5:00pm

Description: Master wiring for today's sophisticated control systems. This half-day session will cover different types of transformers, proper phasing (primary and secondary), diagnosing problems using different meters, wire sizing for communication cables and two-wire systems, DC controllers, special solenoids, and proper splicing techniques.

MAINTENANCE LEARNING TRACK

NEW CLASS

4 CECs

Instructor: Craig Borland

Managing a Landscape Irrigation Service Company: Technicians, Pricing and Marketing

Wednesday, January 23

1:00pm-5:00pm

Description: Retaining well-trained service technicians is one of the largest challenges facing the irrigation service business. This class will explore the difficulties contractors encounter and present strategies for finding, hiring, training and keeping service technicians. This class will present some hands-on models for pricing, including understanding costs and models for technicians and service contract rates. Lastly, different marketing topics, including service contracts and promotion will be discussed. **BUSINESS LEARNING TRACK**

2 CECs

Instructor: Chris Pine



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THURSDAY – JANUARY 24th

Electrical 2-Wire: Techniques & Troubleshooting

Thursday, January 24

8:00am – 12:00pm

Description: Learn more advanced methods of electrical troubleshooting. Covers battery operated timers, D.C. solenoids and solar units, A. C. transformers, and phasing. Discuss fault finding equipment, and amp readings, and proper grounding techniques. **MAINTENANCE LEARNING TRACK**

4 CECs

Instructor: Craig Borland

Understanding the Role of Water Utilities and Water Restrictions

Thursday, January 24

8:00am – 12:00pm

Description: Learning about the role this key stakeholder plays in the Irrigation Industry. Learning to communicate, dealing with increasing water rates and restrictions, better partnering with the water purveyors. **MAINTENANCE LEARNING TRACK**

NEW CLASS

4 CECs (*Water Conservation*)

Instructor: Ted Moriarty

Field Hydraulics & Troubleshooting

Thursday, January 24

1:00pm – 5:00pm

Description: Review the essentials of hydraulics for properly working landscape irrigation systems. This halfday class covers troubleshooting, design, system upgrades and more. **MAINTENANCE LEARNING TRACK**

4 CECs

Instructor: Craig Borland

Developing A Business Plan

Thursday, January 24

1:00pm – 5:00pm

Description: This class shows the steps to writing an effective, useful business document and why, in a rapidly changing industry, contractors need a plan more than ever. **BUSINESS LEARNING TRACK**

NEW CLASS

2 CECs

Instructor: Ted Moriarty



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MEET THE SPEAKERS...

CRAIG BORLAND

Craig Borland has worked for Toro Irrigation/Irritrol for the past 18 years. During that time he has managed the Controller Repair Department and the Service Center Repair program, and also held positions as Warranty Administrator, Inside Sales rep, and is currently working as a Sr. Customer Resource Specialist in the Irrigation Division's Customer Resource Center. Craig provides technical support for the Engineering, Legal, Technical Support and Marketing departments, and the Micro division, among many others. He holds a B.S. in Fruit Science with a Minor in Ornamental Horticulture from Cal Poly–San Luis Obispo. He has taught classes for the Irrigation Association for the past 11 years, and also serves on the IA Education Foundation Committee as a Subject Matter Expert.

ART ELMERS

Art Elmers has been involved in irrigation for over 46 years, is a CIC, CID and CLIA, was a supervising instructor for the IA and is currently the past chair of the National Certification Board. He believes in hands on instruction, so students should be prepared to use their minds to solve relevant problems.

TED MORIARTY

Ted Moriarty CIC, CID, CLIA has worked in the irrigation industry for 28 years. He has worked in distribution and for two major manufacturers of irrigation equipment. Currently, Ted is the owner of Smart Watering Company, an irrigation consulting business whose services include design, irrigation system audits and assessments, developing water management programs, installation, and maintenance. Ted has been an IA instructor since 1997, and is a Past President of the Irrigation Association of New England.

ROY NAU

Roy has 16 years of experience in design installation and maintenance of residential and commercial landscape irrigation systems, landscape lighting systems and drainage systems. He is currently employed by AZ Lawncare & Tree Service in Tabernacle, NJ. Retired from Telcordia Technologies in 2001 as Director of Learning Services after thirty two years in the telephone industry, and also retired from the Navy Reserve as a Chief Warrant Officer (CWO4) in 2004 after 38 years of service. Roy graduated from Southern Methodist University School of Engineering and Applied Science with a Masters' Degree in Telecommunications Engineering.

CHRIS PINE

Chris is the president of C.Pine Associates Inc., which provides marketing, consulting and training services for manufacturers, distributors and contractors, primarily in the Eastern United States and Eastern Canada. Prior to this, Chris worked in sales management for two major manufacturers in the irrigation industry. He owned and operated a successful landscape and irrigation contracting business for 15 years, which was sold in 2000. Chris is active in many industry trade organizations, serving on boards, committees and is recognized as an accomplished trainer. He is certified with the Irrigation Association as a commercial Designer, Landscape Water Manager, Irrigation Contractor and Landscape Irrigation Auditor, as well as being a Massachusetts Certified Landscape Professional. Chris currently lives on Cape Cod in Southeastern Massachusetts.

JOHN RAFFIANI

John Raffiani has been installing and servicing irrigation systems since 1966-over 15,700 to date. He has completed projects ranging from small residential systems to up to 100 acre sites including homes, shopping centers, corporate office parks, athletic fields, and condominiums in New Jersey, New York, Massachusetts, Florida, Arizona, and California. He is a Licensed Irrigation Contractor in NJ, an IA Certified Irrigation Contractor (CIC), an IA Certified Technician (CIT), a Certified Backflow Tester, a Rutgers Certified Fertilizer Applicator and is a member of IANJ, IA, NJLCA, NJTA and NEWWA. He also teaches at the National IA Irrigation Show & Education Conference.