

Water & Wastewater Courses

Check the website for Certification Review Courses: www.treeo.ufl.edu/water

You can Save Time and Money:

Did you know that many of the UF TREEO Water and Wastewater training classes are available to bring to your location? To further save on costs, you may want to consider cooperating with some neighbors to have a regionalized training event.

Contact Ron or Stephanie for details and a proposal.

Stephanie West, swest@treeo.ufl.edu or 352/392-9570 ext. 216 | Ron Trygar, rtrygar@treeo.ufl.edu or 352/392-9570 ext. 215

Onsite Training Programs

The University of Florida Center for Training, Research and Education for Environmental Occupations (UF/TREEO) partners with your organization to customize training programs designed to meet your needs.

- Bring a current UF/TREEO open-enrollment course to your location
- Customize one of our courses to address your current training objectives
- Develop a new, unique course that meets your specific needs

Benefits of Onsite Training

- **No travel expenses for your staff**
- Programs designed to meet specific needs and objectives
- Industry and regulatory examples, value-added material and hands-on training to maximize the educational experience
- Practical applications for the workplace
- Qualified instructors who bring real-world experience, the latest tools and proven technologies to the program
- Programs taught at your facility or a location of your choice
- Flexibility in scheduling
- The University of Florida's long-standing commitment to high-quality learning experiences

Activated Sludge Process Control and Troubleshooting

Sept. 29-Oct. 1, 2009 St. Cloud, FL

Cost: \$495

CEUs: 2.25; FBPE PDHs 0004040: 2.25

FDEP OCP WW CEUs: 2.25: Advanced: 41992

Time Each Day 8:00am-4:30pm

This three-day, interactive workshop will allow the plant operator to investigate and participate in solving real world problems with activated sludge process treatment plants. Students are shown process control testing techniques, how to interpret the data and use the information to troubleshoot and recommend a course of corrective action. A blend of lecture, hands-on demonstration and group interaction are employed during the course to make it a fun and active learning experience.

FDEP SOP Sampling Training For Groundwater, Surface Water and Wastewater

Oct. 13, 2009

Gainesville, FL

Oct 14, 2009

Gainesville, FL

Cost: \$295

CEUs: 0.75 FBPE PDHs 0004040: 7.5

FDEP OCP DS/DW/WW CEUs: 0.75: Intermediate: 4507

Solid Waste I II III/C&D:7.0

Time: 8:00am-4:30pm

This one day course teaches the new, revised Quality Assurance Rules (Chapter 62-160, FAC), basic concepts and techniques for scientifically valid field sampling, as outlined in DEP's Standard Operating Procedures. Planning, documentation, quality control, equipment considerations, and actual sampling procedures for surface water, wastewater, and groundwater are covered. The course involves lecture and actual hands-on segments.



Water & Wastewater Courses

Biological and Chemical Nutrient Removal: A Study of Nitrogen and Phosphorus Removal

Oct. 6-7, 2009 Gainesville, FL

Cost: \$395

CEUs: 1.55 FBPE PDHs 0004040: 15.5

FDEP OCP WW CEUs: 1.55 : Advanced: 41991

Time Day 1: 8:00am-5:00pm | Time Day 2: 8:00am-3:30pm

This two-day course focuses on biological nutrient removal operations in small and medium-sized wastewater treatment systems. The removal of carbon, nitrogen and phosphorus is explained in operator-friendly language. You learn about current developments in the field and benefit by participating in extensive case studies, problem solving exercises and a field trip. Students should have a working knowledge of the Activated Sludge Process before taking this course.

Chlorine Safety and Emergency Response

Nov. 17-19, 2009

Cost: \$475

CEU: 2.0 FBPE PDH 0004040: 20.0

FDEP OCP DS/DW/WW CEUs: 2.0: Intermediate: 4203

Time Day 1: 8:30am-4:00pm | Time Day 2: 8:00am – 4:00pm

Time Day 3: 8:00am - 3:30pm

This course provides the background information, practical experience, and cautions needed to safely respond to chlorine releases. The use of chlorine requires compliance with numerous regulations. They require specific planning, training, reporting, and equipment for various levels of response. Proper chlorination system designs and alternative disinfectant processes are explored.

Energy Conservation at Water & Wastewater Treatment Facilities

Spring 2010

CEUs: 0.7 FDEP OCP DW/WW CEUs: 0.7: Basic: 4391

FBPE PDH's 0004040: 7

Time: 8:00am-4:00pm

This one-day workshop is designed to give either the water or wastewater treatment professional insight and ideas on conserving energy at their treatment plant. As energy costs rise, many operators are looking for ways to cut down on energy consumption.

Introduction to Electrical Maintenance

May 4-6, 2010

Gainesville, FL

Cost: \$495

CEUs: 2.0 FBPE PDHs 0004040: 20.0

FDEP OCP DW/WW CEUs: 2.0: Intermediate: 4552

Solid Waste I II III/C&D/TS/MRF: 16.0

In this course, you are introduced to three-phase electrical motor controls and you learn how to properly use various types of meters to collect operating data and trouble-shoot. In addition, you assemble working motor control circuits such as holding, interlock, low voltage and float controlled circuits. Actual case studies are used to familiarize you with the data and math required for motor and pump evaluation. All participants are advised to bring calculators for classroom examples. Topics include: Safety, electrical panels, motors and controls, performance measurement, and control circuit assembly.

Lift Station Maintenance

Nov. 19, 2009

Gainesville, FL

Cost: \$295

CEUs: 0.8 FBPE PDH's 0004021: 8

FDEP OCP DS/WW CEU's: .8 Intermediate 4558

Time: 8:00am-5:00pm

This one-day class is designed to give the student an overview of the day-to-day operation and maintenance of wastewater lift stations. Subjects covered will include types of lift stations, lift station operating principles, components, routine PM requirements and basic troubleshooting techniques.

Maintaining Wastewater Collection Systems

Nov. 20, 2009

Gainesville, FL

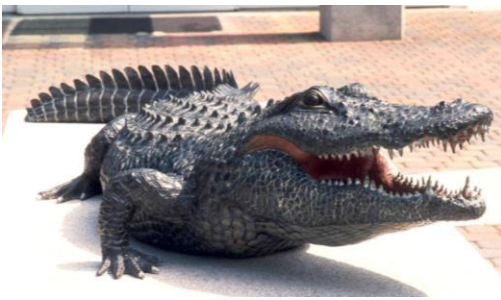
Cost: \$295

CEUs: 0.8 FBPE PDHs 0004040: 8

FDEP OCP DS/WW CEUs: .8 Intermediate 4508

Time: 8:00 am-5:00pm

This one-day seminar is designed to give the participant an overview of wastewater collection systems and how they are designed, constructed and maintained. Subjects include types of collection systems, collection system components, safety considerations, system inspection, maintenance techniques and lift station operation and maintenance.



Water & Wastewater Courses

Energy Conservation at Water & Wastewater Treatment Facilities (continued)

Energy conserving tips are discussed during the class, with ways of tracking the actual energy and cost savings. Are you thinking of buying an energy efficient motor for that old pump? Discover ways of calculating simple payback, finding rebates or funding for your upcoming motor and/or pump replacement. Standard operating and standard maintenance procedures are covered as well.

Microbiology of Activated Sludge

Aug. 25-26, 2009 Gainesville, FL

Cost: \$445

CEUs: 1.5 FBPE PDHs 0004040: 15

FDEP OCP WW CEUs: 1.4: Intermediate: 4191

Time Day 1: 8:00am-4:30pm | Time Day 2: 8:00am-4:30pm

This interactive two-day course includes hands-on use of advanced microscopes, slide preparation and filament staining techniques. Students will learn proper care and use of microscopes as well as activated sludge process testing and troubleshooting. The course focuses on the valuable information a microscope provides for controlling and troubleshooting an activated sludge wastewater treatment plant. This is an excellent course for intermediate to advanced level operators.

Students are invited to bring small MLSS samples from their facility to use during slide preparation and organism identification exercises. Students will receive troubleshooting charts geared toward solving commonly encountered problems at an activated sludge treatment plant.

Performing Successful Distribution System Flushing

Nov. 18, 2009 Gainesville, FL

Cost: \$295

CEUs: 0.8 FBPE PDHs 0004040: 8

FDEP OCP DS/DW CEUs: .8 Intermediate 4509

Time: 8:00am-5:00pm

This class will teach the participants how to effectively flush a water distribution system using unidirectional flushing techniques. Whether used for routine maintenance or as a response to water quality issues, unidirectional flushing ensures that impurities in the distribution system are

Permit Required Confined Space Entry

Oct. 28, 2009

Gainesville, FL

Cost: \$295

CEUs 0.8 FBPE PDHs 0004040: 8.0

FDEP OCP DS/DW/WW CEUs: 1.6: Intermediate: 4215

Solid Waste I II III/C&D/TS/MRF: 8.0

Time: 8:00am-5:00pm

Contact Dawn Jenkins, djenkins@treeo.ufl.edu

or 352/392-9570 ext. 227

This course is designed for students who are responsible for developing confined space training programs, or who are supervising contractors or employees performing entries. You apply your knowledge of the requirements of the standard, development of training programs, and use of specialized equipment and procedures. Topics include: hazard identification, training requirements, written program, rescue services and personal liability.

Permit Required Confined Space Entry Supervisor

May 19-20, 2009

Gainesville, FL

Cost: \$395

CEUs 1.6 FBPE PDHs 0004040: 16.0

FDEP OCP DW/WW CEUs: 1.6: Intermediate: 4223

Solid Waste I II III/C&D/TS/MRF: 16.0

Time: 8:00am-5:00pm

Contact Dawn Jenkins, djenkins@treeo.ufl.edu

or 352/392-9570 ext. 227

This training is designed to enable personnel to safely perform confined space responsibilities, as an Entrant, Attendant, and Entry Supervisor. This training will enable workers to respond to confined space emergencies. Training includes the proper use of non-entry rescue equipment to make safe entries into permit required confined spaces.

Sequencing Batch Reactor Operation, Make it Work for You

Aug. 18-19, 2009

Miramar Beach, FL

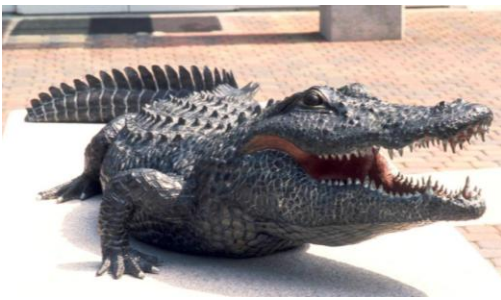
Cost: \$395

CEUs: 1.4 FBPE PDHs 0004040: 14.0

FDEP OCP WW CEUs: 1.4: Advanced: 41993

Time: 8:00am-4:00pm

Sequencing Batch Reactor (SBR) facilities are becoming the preferred method of biological wastewater treatment in the



Water & Wastewater Courses

Performing Successful Distribution System Flushing (continued)

effectively removed. It also identifies problems such as closed valves and poor hydraulic capacity that can affect water quality and delivery. Subjects covered include basic distribution system hydraulics, flushing program objectives, tool and equipment requirements, valve and hydrant operation, flushing program design, dechlorination criteria, data collection, customer relations and flushing problem solving. The students will apply the knowledge gained by working in teams to design a unidirectional flushing program for a small distribution system.

Pumping Systems Operations and Maintenance

Spring 2010 Gainesville, FL

Cost: \$495

CEUs: 2.3 FBPE PDHs PDHs 0004040: 23

FDEP OCP DW/WW CEUs: 2.3 Intermediate: 41997

This "how-to" course will help the water or wastewater operator to understand how centrifugal pumps operate and perform basic pump maintenance. Subjects covered include centrifugal pump theory, reading pump curves, normal maintenance requirements, replacement of packing, mechanical seals, impellers, wear rings and shaft sleeves. You will receive the current edition of the popular Pumps and Pumping, the only comprehensive pump manual designed specifically for water and wastewater operations.

Sodium Hypochlorite Operations Level Training

Oct. 21, 2009 Gainesville, FL

Cost: \$295

CEUs: .8 FBPE PDHs 0004040: 8

FDEP OCP DS/DW/WW CEUs: .8: Intermediate: 4267

Time: 8:00 a.m. - 5:00 p.m.

This course focuses on the safe handling of Sodium Hypochlorite and provides information on its properties, manufacture, safe handling, packaging, transportation, regulations, health, safety, emergency response, and environmental compliance. Course topics include chemistry and physical properties of Sodium Hypochlorite, stability of Hypochlorite solutions, production methods for sodium Hypochlorite, safety considerations, handling and storage, transportation, and emergency response. The program also includes responsible care concepts.

Sequencing Batch Reactor Operation, Make it Work for You (continued)

State of Florida. SBR facilities not only experience many of the same operational difficulties that affect other activated sludge processes but also experience problems that are specific to this type of process. This course covers principles, design and modification and process monitoring of SBRs.

Students should have a working knowledge of the activated sludge treatment process before taking this course.

Train-the-Trainer For Environmental Occupations

Oct. 27-29, 2009

Gainesville, FL

Cost: \$695

CEU's : 2.05 FBPE PDHs 0004040: 20.5

FDEP OCP DS/DW/WW CEU's: 2.05

Intermediate and Advanced: 4357

Solid Waste I II III/C&D/TS/MRF: 7.0

Students will participate in the preparation, delivery, and assessment of mock-lectures and skills training to become a more confident and competent trainer. The course will cover instructional technology and methodology used in adult education to prepare trainers to teach technical material. In addition, students will learn how to identify in house training needs, develop that training at their facilities using various tools provided, maintain training records and develop effective presentation skills.

Water Distribution System Pipes and Valves

Nov. 17, 2009

Gainesville, FL

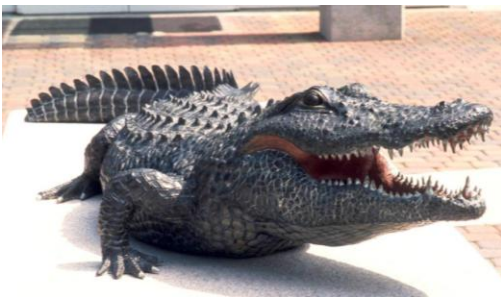
Cost: \$295

CEUs: 0.8 FBPE PDH 0004040: 8

FDEP OCP DS/DW CEUs: .8 Basic 419990

Time: 8:00am-5:00pm

This course will give the participant an overview of the installation and maintenance requirements of pipes and valves typically found in a water distribution system.. Subjects covered will include pipe and valve selection, construction, installation, maintenance and testing. Students will work in teams to disassemble various valves and examine how they operate.



Water & Wastewater Courses

Water Distribution Systems Operator Level 2 & 3 Training

Sep. 22 - Oct. 20, 2009 Gainesville, FL

Cost: \$495

FDEP OCP DS/DW CEUs: 3.2 Basic 41998 Level 3

CEUs: 3.2

The course covers a wide variety of topics, and is taught by qualified instructors chosen by the UF TREEO Center in Gainesville, Florida. The class is a 32 hour training session over 4 days. Included in the course is a 1 day review course a month later that is recommended for the student to attend right before they are scheduled for the FL exam. Backflow prevention devices, various test kits, models of pumps, valves and hydrants will be displayed and described by the instructors to give students a hands-on approach to learning.

The course follows the Association of Boards of Certification (ABC) "Need-to-Know Criteria for Distribution Operators". Upon registration, each student is issued the manual "Water Distribution Operator Training Handbook" published by the AWWA, as well as all the course material presented in PowerPoint format. The students are given opportunities to test their knowledge in TREEO Center's computer lab where they take a computer based exam based on the material presented during the class.

Water Reclamation Treatment Processes

Sept. 15-16, 2009 Gainesville, FL

Cost: \$395

FDEP OCP WW CEUs : 1.4 Intermediate: 4111

CEUs: 1.4 FBPE PDH's 0004040: 14

This course is designed to help Managers, Supervisors, Operators, Engineers and State Regulatory Officials of today's wastewater treatment plants understand the various processes used to reclaim our most precious resource – water.

This course outlines the many different processes being used to treat and reclaim used water to high quality standards:

- The basics of biological, chemical and physical carbon, nitrogen and phosphorous removal
- Secondary and advanced effluent filtration
- Effluent disinfection and disposal techniques
- New and advanced treatment technologies
- Meeting FDEP Reuse Regulations
- Operating Protocols

Water Facilities Security and Response Systems Training

Dec. 2-3, 2009

Brandon, FL

Dec. 8-9, 2009

Miramar Beach, FL

Dec. 15-16, 2009

Ft. Myers, FL

Jan. 19-20, 2010

Altamonte Springs

CEU's: 1.4 FBPE PDH's 0004040: 14

FDEP OCP DS/DW/WW CEUs: Intermediate: 4377: 1.4

Cost: No Charge. Pre-registration required.

The University of Florida TREEO Center, in cooperation with Florida's Department of Environmental Protection (DEP), will be presenting Water Facilities Security and Response Systems Training (WST) in communities across the State. This training is considered as an important element in emergency preparedness.

The continuously updated course includes an overview of the latest emergency protocols, and features interactive scenarios aimed at improving participants' ability to plan, coordinate and effectively respond as a crisis unfolds in their community.



Water & Wastewater Courses

Questions about the courses below: Dawn Jenkins, djenkins@treeo.ufl.edu or 352/392-9570 ext.227

Excavation and Trenching Safety Procedures

Aug. 11, 2009 Destin, FL 100066
Oct. 5, 2009 Crystal River, FL 100077

Cost: \$150

CEUs 0.4 FDEP OCP DS/DW/WW CEUs: 0.4: Basic: 4263

Solid Waste I III/C&D: 4.0

Time: 8:00 am-12:00 pm

This class provides a brief update for managers and supervisors on OSHA Regulations for trench and excavation. Other topics discussed include: Competent Person Requirements, OSHA Training Requirements and Soil Types/Hazard Identification

Excavation and Trenching: Competent Person Training

Oct. 29, 2009 Gainesville, FL 100081

Cost: \$325

CEUs: 0.8 FDEP OCP DS/DW/WW CEUs: 0.8: Intermediate: 4201

FBPE PDHs 0004040: 8.0 Solid Waste I II III/C&D: 8.0

SWANA CEU: 5.0

Time: 8:00 a.m. - 5:00 p.m.

If you or your employees engage in trenching activities, you may be the target of increased scrutiny by OSHA, safety inspectors and insurance carriers. This course is designed to give you a practical interpretation of the requirements of OSHA's "Competent Person" rules as well as other regulations related to trenching. You learn the essentials of soil analysis, protective systems, and the applicable OSHA standards. Participant must be present for entire class time to receive CEUs and a Certificate of Attendance.

Topics Include

- OSHA standards
- Protective systems
- Soil analysis

Spill Prevention Control and Countermeasure (SPCC) Training and Development Course

CEUs: 0.7

FBPE PDHs 0004040: 7.0

FDEP OCP DW/WW CEU's: 0.7: Advanced 4268

Solid Waste I II III/C&D/TS/MRF: 6.0

Time: 8:00am-4:00pm

Heavy Equipment Safety

Aug. 12, 2009 Destin, FL 100067
Oct. 6, 2009 Crystal River, FL 100078

Cost: \$150

CEUs 0.4 FDEP OCP DS/DW/WW CEUs: 0.4: Basic: 4266

Solid Waste I III/C&D/TS/MRF/Spotter: 4.0

Time: 8:00 am-12:00 pm

This class covers methods to authorize heavy equipment operators on equipment. Other topics discussed include: Safety and Operation Procedures of Heavy Equipment Training programs for heavy equipment operators.

Permit Required Confined Space Awareness

Aug. 11, 2009 Destin, FL 100075
Oct. 5, 2009 Crystal River, FL 100083

Cost: \$150

CEUs 0.4 FDEP OCP DS/DW/WW CEUs: 0.4: Basic: 4265

Solid Waste I III/C&D/TS/MRF: 4.0

Time: 1:00 pm-5:00 pm

In this four hour class the introduction and application of the rule, personal liability issues, and hazard awareness will be covered. Additional topics include: the New Confined Space Proposed Standards, Safety Updates and Isolation of Large Process Tanks.

Introduction to Heavy Equipment and Skills Testing

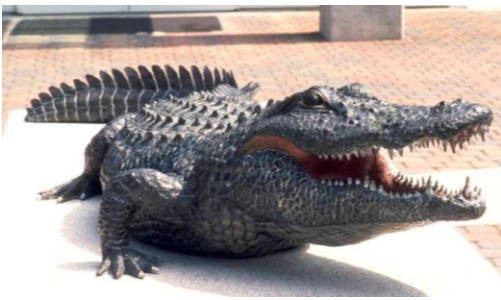
On-site training only, with your equipment.

CEUs: 0.4

FDEP OCP DS/DW/WW CEUs: 0.4 : Intermediate: 4269

Participation in this class will enable students to identify the basic components required to safely operate heavy equipment commonly used in the public service industries. Students will perform skill tests to demonstrate basic safe operational skills and successfully complete written testing to demonstrate knowledge.

On-site training only, with your equipment. Class size is a maximum of eight (8) students during a four hour time frame. Training consists of classroom work and hands on skill testing. This training is useful as introductory training for new workers or training documentation for experienced workers



Water & Wastewater Courses

Spill Prevention Control and Countermeasure (SPCC) Training and Development Course (continued)

If you are a company or municipality that stores more than 1,320 gallons of oil for lubrication, emergency generation or for other uses, you might need to prepare a Spill Prevention, Control and Countermeasure (SPCC) Plan.

The USEPA recently issued new guidance on the SPCC regulations that changes many aspects of SPCC compliance, including what types of facilities are regulated. This course is intended to help you find out what you need to know to comply.

This course will help you understand the basis for the SPCC rule, how to design and implement an effective SPCC plan, be able to report releases in timely manner, and learn how to use your spill plan to prevent releases. For those already with SPCC Plans, the instructor will walk you through everything you need to know to evaluate your existing plan for compliance with the latest standards.

The deadline for preparing or amending Plans to address current rules is November 2009. In addition, all upgrades to your facility must be completed and the SPCC plan must be fully implemented by that same date. So the need for this course for many companies is very is timely.

The 13th Annual Florida AWWA Water Utility Management Institute - South Edition

Sep. 14-16, 2009 Ft. Lauderdale, FL 090810

Cost: \$550

CEUs: 2.0; FDEP OCP DW/WW CEUs: 2.0 Intermediate: 4388; FBPE PDHs 0004040: 20.0

Day 1-2: 8:00am-5:00pm Day 3: 8:00am-12:00pm

This institute offers concentrated study designed specifically to provide training in current management techniques for water managers to help them meet the challenges confronting water utilities in today's setting. Throughout the institute, instruction sessions and discussion groups are led by highly successful, respected leaders in water utility operations, and by business management educators, who will emphasize both municipal and privately owned water utility management. Recommended for: First-Line Supervisors, managers and operators. This is one of three institutes in the US offered in association with AWWA.

Questions: Dawn Jenkins, djenkins@treeo.ufl.edu or 352/392-9570 ext.227

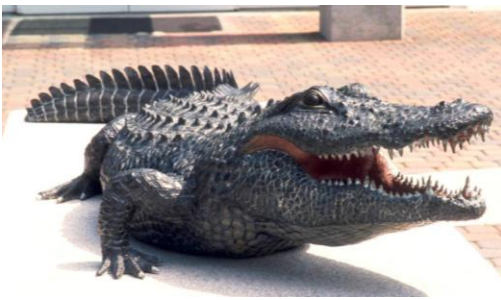
Registration: Lauren McCain 352/392-9570x212 or lmccain@treeo.ufl.edu or www.treeo.ufl.edu

Introduction to Heavy Equipment and Skills Testing (continued)

Equipment Included in Program

- Fork Lift
- Rubber Tire Backhoe
- 10 Wheel Dump Truck
- Front-end Loader
- Jet Truck
- Vacuum Equipment (truck and trailer mount)
- Lift Trucks
- Track Equipment (excavator and bulldozer)

Curriculum includes lecture, video, facilitated discussion, and power point illustrations of key topics. Approximately one hour is spent in classroom learning the general safety requirements and identifying unique hazards or requirements for each machine. Each class includes a written test. Three hours of equipment skill testing and hands on training are combined with written documentation. Successful students receive a safe operation certification useful by employers who authorize workers to operate heavy equipment.



Water & Wastewater Courses

To Register

Online: Visit www.treeo.ufl.edu and click on “Water & Wastewater.”

Purchase Order: Government agencies may pay with a purchase order.

REGISTRATION WILL BE CONSIDERED COMPLETE ONLY UPON RECEIPT OF BOTH REGISTRATION FORM AND PAYMENT IN U.S. DOLLARS. ALL REMITTANCES SHOULD BE MADE PAYABLE TO THE UNIVERSITY OF FLORIDA.

Services for Persons with Special Needs

Persons with disabilities who require special accommodations should contact Lauren McCain at 352/392-9570, ext. 212, at least 10 days prior to the course so that proper consideration can be given to the request.

Cancellation Policy

If you cannot attend, written notification must be received at least two working days prior to the course. You may transfer to another course, send a substitute, or receive a refund. In the event that a course is canceled, UF/TREEO is not responsible for non-refundable travel fares or lodging deposits.

Continuing Education

The courses in this brochure have been approved by the Florida DEP Operator Certification Program for Drinking Water (DW), Distribution Systems (DS) and/or Wastewater (WW) continuing education units. UF TREEO is also an approved provider of the Florida Board of Professional Engineers for license renewal.

Location and Accommodations

Gainesville Location: University of Florida TREEO Center, 3900 SW 63rd Blvd., Gainesville, FL 32608, 352/392-9570. For directions, visit www.treeo.ufl.edu/locations. Caution: Do not use online mapping services for directions to UF/TREEO.

Gainesville Accommodations:

- Hampton Inn, 4225 SW 40TH Blvd. (I-75 & SR24, Exit #284), Gainesville, FL 32608, 352/371-4171, 1-800-426-7866, fax: 352-371-4234, \$93 single/double
- Cabot Lodge, 3726 SW 40th Blvd., Gainesville, FL 32608, 352/375-2400, 1-800-843-8735, \$69 single, \$74 double
- Comfort Inn West, 3440 SW 40th Blvd., Gainesville, FL 32608, 352/264-1771, 352/264-9996, \$64.99 Standard, \$79.99 Suite, \$89.99
- Springhill Suites by Marriott-Gainesville, 4155 SW 40th Blvd, Gainesville, FL 32608, 352-376-8873, Suite \$89



Visit the web for information on locations and accommodations for courses outside of Gainesville:

www.treeo.ufl.edu/water

The University of Florida is an Equal Opportunity/Affirmative Action educational institution.

Cost of brochure covered by participants' fees.

© 2009 University of Florida TREEO Center