

SOUTH CAROLINA
ENVIRONMENTAL
TRAINING CENTER

2012 Course Catalog

FIND YOUR PATH AT CENTRAL CAROLINA TECHNICAL COLLEGE



*Continuing Education
 For Professionals*



Our Mission

At the time of its inception, the mission of the SCETC was to assist South Carolina in the transition to the advanced technological changes of the decade: that purpose has not changed, and the SCETC continues to provide training in the most recent environmental technologies. We are the South Carolina Department of Health and Environmental Control (SCDHEC) designated state resource center for environmental training. The ultimate goal of the SCETC is to provide well-trained professionals, particularly in the areas of environmental sciences and safety. By doing so, the SCETC is performing the most critical service to the Southeast – preparing individuals for the workforce.

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Contact Information

Central Carolina Technical College, SCETC
 506 North Guignard Drive
 Sumter, South Carolina 29150
 Phone: 803.778.6656 Fax: 803.778.7879
 Email: etc@cctech.edu Website: www.cctech.edu



SCETC is located on North Guignard Drive (Sumter, SC), directly across from the Central Carolina Technical College Main Campus in Building 600.



Registration Information

4 easy ways to register:

1. **LOG-ON** to our website to print a registration form:
www.cctech.edu/scetc.htm
2. **MAIL** the completed registration form to:
**Central Carolina Technical College, SCETC,
506 N. Guignard Dr. Sumter, SC 29150**
Please include credit card information or a check payable to
Central Carolina Technical College.
3. **FAX** your registration form, with the credit card portion of the form
completed, to **SCETC: 803-778-7879**
4. **HAND DELIVER** your registration form to a staff member at:
SCETC in Building 600 at Central Carolina Technical College in Sumter

Enrollment Information - Course registrations are taken on a "first-come, first-served" basis. Class size is limited, and it is recommended that students register at least one month in advance. Courses with low enrollment are subject to cancellation prior to class start date. In the event of cancellation, students will be notified and the tuition refunded.

- *Payment must accompany registration.*
- *When using a credit card for payment, registration forms may be faxed: please include card expiration date and security code. If your card is declined, alternate form of payment is necessary; STUDENT IS NOT REGISTERED UNTIL PAYMENT IS RECEIVED.*
- *Registration form MUST include student's Social Security number OR date of birth.*

**No Confirmation notice will be sent.
To confirm, please call the SCETC.**

- *Certificates will be given for each course; duplicates may be purchased for \$10 each.*

**It is the policy of Central Carolina Technical College
not to sell or otherwise distribute course
materials outside the venue of controlled courses.
Materials are copyrighted and all rights are reserved.**

**CENTRAL CAROLINA
TECHNICAL COLLEGE**

Central Carolina Technical College and the South Carolina Environmental Training Center Registration Form

Mail: Central Carolina Technical College
SC Environmental Training Center
506 N. Guignard Drive - Sumter, SC 29150
Phone: 803-778-6656 **Fax:** 803-778-7879 **Email:** etc@cctech.edu

Name _____

Course Name _____

Course Date _____

Course Cost _____ Online: [] YES [] NO

Short School Level (Circle One) A B C D
(Water & Wastewater Operators Only)

Social Security # or Date of Birth _____

Sex: [] M [] F US Citizen: [] YES [] NO

Ethnicity:
[] African American [] American Indian [] Asian [] Hispanic [] White

Work Phone _____ Cell Phone _____

Home Phone _____ Fax # _____

Mailing Address _____

City _____ County _____

State _____ Zip _____

Company Name _____

Email Address _____

Payment Information:

- [] Check (Payable To: Central Carolina Technical College)
[] Credit Card (Circle One) VISA MC AE

Credit Card # _____

Name On Card _____

Card Exp _____ Security Code # _____

Card Billing Address _____

Signature _____

- [] Payment Assistance: (Circle One Below)
VA Voc/Rehab TA Student Loan WIA TAA

Refunds: A full refund will be issued for all courses, seminars, and workshops cancelled by Central Carolina Technical College. Registrations cancelled before the cutoff date, ten (10) working days before the scheduled training, will be assessed a 20% administrative fee. There will be no refund for a cancellation less than ten (10) working days prior to the start date.

**No Confirmation will be sent.
To confirm, please call the SCETC**

Online Water & Wastewater COURSES

Short Schools:

Advanced and Basic Short Schools

- **P/C Wastewater** 40 hours - \$450
- **Biological Wastewater** 40 hours - \$450
- **Water Treatment** 40 hours - \$450
- **'E' Level Water Treatment** 21 hours - \$375
- **Water Distribution** 21 hours - \$375

Designed to mirror the face-to-face short schools, these courses provide participants with the tools necessary to enhance operating skills and prepare for the state certification exam. Glossary, crossword puzzles, slide presentations, and quizzes will enhance the learning experience. Students will have direct communication with a personal instructor to help answer questions. Short Schools are intensive training sessions designed as a comprehensive overview for operators of water and wastewater treatment facilities who are preparing for the state certification exam. State "Standards of Performance" for operators are used as the topical outline for each Short School, and Sacramento Manuals are used as reference texts. Tuition includes book.

12-Hour Reviews

- **P/C Wastewater**
- **Biological Wastewater**
- **Water Treatment**
- **Water Distribution**

Work at your own pace while sharpening operating skills. These courses include glossaries, visual aids, and practice quizzes. Students will have direct communication with a personal instructor to help answer questions. Review courses are intended for water and wastewater operators desiring to earn 12 hours of continuing education credit to maintain their water and/or wastewater operator certification and who are not preparing for the state certification exam. Course fee is \$250.

"E" Level Water Treatment License

The South Carolina Environmental Certification Board (SCECB) has announced that water treatment operators will be required to obtain an "E" level license. The inclusion of the "E" license will maintain compliance with South Carolina Code of Laws (Section 40-23-300 B (2)) and provide small water systems with an appropriate level of licensure for their operators. The license is required for any water treatment facility in South Carolina, regardless of size, but **does not apply to currently licensed water treatment trainees**, only to individuals who apply for a water treatment operator permit after May 1, 2011.

To obtain an "E" level license, an individual must hold a valid operator trainee permit, pass the state approved examination, and submit an application and the prescribed fee to the SCECB. "E" level operators are only required to have six months of actual operating experience as an operator at a public water treatment facility. The renewal period for the "E" license is one year.

Environmental Certification Board

www.llr.state.sc.us/pol/environmental

The South Carolina Department of Labor, Licensing and Regulation (LLR) recommend the South Carolina Environmental Training Center (SCETC) for training to help prepare operators for state certification exams and continuing education units for all curriculums offered at the SCETC.

6-Hour Reviews

- **6-hour Wastewater Review**
- **6-hour Water Review**

These courses are designed to supplement the continuing education requirements for water / wastewater operators and increase basic skills that will assist operators in their daily activities at treatment facilities. The courses include: dealing with support systems, unit process control and other core competency material. Students will have direct communication with a personal instructor to help answer questions. These 6-hour review courses are \$175.

Basic Math for Operators

- **12-hour Review - \$299**

This introductory math course is beneficial for water and wastewater operators who are preparing for a basic level state certification exam or for operators who desire a refresher course in mathematics. The course involves practicing basic math calculations that apply to treatment facilities. Course topics include addition, subtraction, multiplication, division, fractions, decimal equivalents, conversions, formulas, units of measure, word problems, and calculating dosages.

Advanced Math for Operators

- **12-hour Review - \$299**

This advanced math course is beneficial for water and wastewater operators who are preparing for an advanced level state certification exam or for operators who desire a refresher course in mathematics. The course involves learning advanced math calculations that apply to treatment facilities. Course topics include a general math review and problems related to coagulation, chemical feeders, clarification, chlorination, fluoride, filtration, hydraulics, motors, pumps, and flow rates.

Pool & Spa - CPO Operator

This course is designed for persons responsible for operating or managing swimming pools and spas. Topics include: South Carolina Rules and Regulations, legal requirements, water requirements, water chemistry, filtration and circulation, disinfection techniques, water testing, troubleshooting, problem prevention, and safety. Students will have direct communication with a personal instructor to help answer questions. This 10-hour course is \$150 (there is an additional \$70 fee for students who would like to purchase the Certified Pool-Spa Operator Handbook from the National Swimming Pool Foundation).

Operators are required to obtain at least 12 hours of continuing education over a two-year period or take and pass an exam. This period begins on July 1st of an odd year and ends June 30th two years later – also an odd year. Operators may use the same hours to cover more than one certification if the subject is relevant to both/all areas. Operators must maintain their own records of continuing education credit, including the title of the course, location, dates, instructor, and hours earned. Certificates issued after successful completion of training at the SCETC are acceptable.

Operator Exam Information

The South Carolina environmental certification examinations are administered by Applied Measurement Professionals (AMP) Assessment Centers. The exams are given on a computer at over 150 locations throughout the United State. In South Carolina, exam facilities are located in Columbia, Spartanburg and Georgetown. A current listing of AMP Assessment Centers, including addresses and driving directions, may be viewed at the AMP's website located at www.goAMP.com. The examinations are administered by appointment only; Monday through Saturday at 9:00 a.m. and 1:30 p.m. The cost of the examinations are \$95.00 each and candidates are scheduled on a first-come, first-served basis. To register for an exam go to www.goAMP.com or call 1-800-345-6559.

Earn One Year of Work Experience
Toward your Operator License

Water & Wastewater Operator Certificate

Central Carolina Technical College has developed an **ONLINE** Water and a Wastewater Operator Certificate program to help operators gain a better understanding of water or wastewater treatment operations and to provide an opportunity for employees to receive a higher level of certification more quickly. These Certificates were developed to provide students with work-ready skills and as an avenue for on-going specialized training with access to the latest technologies and educational services in the water and wastewater fields. These Certificates can be used to meet professional and personal goals while preparing students for the next level of certification. Training includes an overview of state and federal regulations, industrial safety, emergency response, hazardous waste and treatment issues with an emphasis on operations.

- All of the courses are offered ONLINE.
- Scholarships and financial aid are available to eligible students.
- Certificate can be completed in one year.
- **The Environmental Certification Board (LLR) has approved this certificate to count as one year of work experience toward a higher certification level.**
- All of the courses are transferable into the Environmental Engineering Technology Associate Degree program at Central Carolina Technical College.

If you have any questions about Admissions or Financial Aid; please call or email:
Josh Castleberry at 803-778-6601 or castleberryjs@cctech.edu

Fall Courses:

Introduction to Environmental Compliance and
Industrial Safety and Emergency Response

Spring Courses:

Hazardous Waste and
Basic Water Treatment (Water Certificate) or
Basic Physical/Chemical Wastewater (Wastewater Certificate)

Summer Courses:

Introduction to Treatment Facilities and
Basic Water Distribution (Water Certificate) or
Basic Biological Wastewater (Wastewater Certificate)

ONLINE Opportunities

Earn an Associates Degree in Environmental Engineering Technology

Students in the Environmental Engineering Technology program, at Central Carolina Technical College, explore dynamic environmental principles including; ecology, energy, resources, waste management, air, water, wastewater, and soil pollution. Students also determine strategies for effectively minimizing or preventing waste in order to reduce the impact on the environment; discuss innovative solutions to environmental issues; and look at ways to improve processes and protect people as they work with hazardous and toxic chemicals. Fundamental principles and concepts of laboratory applications, operations of water and wastewater treatment facilities, environmental regulations, pollution prevention, waste disposal strategies and many other environmental issues are studied in the program. Most importantly, students acquire skills and knowledge they can adapt to a variety of environmental, health, and safety career opportunities.

Earn an Environmental, Health, and Safety Certificate

The Environmental, Health, and Safety Certificate (EH&S) is designed to prepare graduates to evaluate and remediate workplace and environmental hazards in order to promote public health. Graduates of the Certificate will be prepared to enter the workforce as a technician or continue their education and obtain an Associate Degree in Applied Science with a Major in Environmental Engineering Technology. The program prepares students for a career in industrial hygiene, industrial safety and health, toxicology, risk management, public health, regulatory compliance, and occupational health. The program content is applicable to industrial and construction personnel as well as individuals responsible for safety at public works departments, city and county governments, emergency response teams, and civil defense workers.

** All courses are offered online and tuition assistance is available to eligible students.*

Water/Wastewater 2012 Course Schedule

Short School Description

Short Schools are intensive training sessions designed as a comprehensive overview for operators of water and wastewater treatment facilities who are preparing for the state certification exam. State "Standards of Performance" for operators are used as the topical outline for each Short School, and Sacramento Manuals are used as reference texts. Handouts, videos, demonstrations and practice tests are utilized in the training program.

Book Requirements for Short Schools

Sacramento Manuals are reference texts for all Short Schools, as well as one reference for the S.C. state certification (ABC) exams. Manuals are issued at no cost for "D" and "B" level courses in Water Treatment, Physical/Chemical Wastewater, Biological Wastewater and the "D" level Water Distribution courses. Students are asked to bring the manuals for the "C" and "A" level courses. Additional manuals are available for purchase through the SCETC. Call (803) 778-6656.

Review Course Description

Review courses are intended for water and wastewater operators desiring to earn continuing education credit to maintain their water and/or wastewater operator certification and who are not preparing for the state certification exam.

Online Course Description

Online training is designed to mirror face-to-face courses and provide participants with the tools necessary to enhance operating skills and prepare for the certification exam (Short Schools) or gain continuing education credit (Reviews). Glossaries, crossword puzzles, slide presentations, and quizzes enhance the learning experience. Students will have direct communication with their personal instructor to help answer questions. All levels of Short Schools and Reviews are available for online training.

Biological Wastewater Treatment Short Schools

\$450	MTWR	Mar. 5-8, 2012	8:30-4:30	(28 hrs.)	D	XWWT 604
\$399	MTWR	Mar. 5-8, 2012	8:30-4:30	(28 hrs.)	C	XWWT 603
\$450	MTWR	Mar. 19-22, 2012	8:30-4:30	(28 hrs.)	B	XWWT 602
\$399	MTWR	Mar. 19-22, 2012	8:30-4:30	(28 hrs.)	A	XWWT 601
\$450	MTWR	July 9-12, 2012	8:30-4:30	(28 hrs.)	D	XWWT 604
\$399	MTWR	July 9-12, 2012	8:30-4:30	(28 hrs.)	C	XWWT 603
\$450	MTWR	July 23-26, 2012	8:30-4:30	(28 hrs.)	B	XWWT 602
\$399	MTWR	July 23-26, 2012	8:30-4:30	(28 hrs.)	A	XWWT 601
\$450	MTWR	Nov. 12-15, 2012	8:30-4:30	(28 hrs.)	D	XWWT 604
\$399	MTWR	Nov. 12-15, 2012	8:30-4:30	(28 hrs.)	C	XWWT 603
\$450	MTWR	Nov. 26-29, 2012	8:30-4:30	(28 hrs.)	B	XWWT 602
\$399	MTWR	Nov. 26-29, 2012	8:30-4:30	(28 hrs.)	A	XWWT 601

Biological Wastewater Reviews

\$250	WR	Mar. 28-29, 2012	8:30-3:30	(12 hrs.)		XWWT 614
\$250	WR	July 18-19, 2012	8:30-3:30	(12 hrs.)		XWWT 614
\$250	WR	Nov. 7-8, 2012	8:30-3:30	(12 hrs.)		XWWT 614

Biological Wastewater Online Courses

Online courses are scheduled monthly; call the SCETC at 803-778-6656 for the next start date.

\$450	D and C Level Short School	(40 hrs.)	XONL 703
\$450	A and B Level Short School	(40 hrs.)	XONL 704
\$250	Review	(12 hrs.)	XONL 614
\$175	6 hr Review for Wastewater Operators	(6 hrs.)	XONL 670

Physical/Chemical Wastewater Short Schools

\$450	MTWR	Feb. 13-16, 2012	8:30-4:30	(28 hrs.)	D	XWWT 608
\$399	MTWR	Feb. 13-16, 2012	8:30-4:30	(28 hrs.)	C	XWWT 607
\$450	MTWR	Feb. 20-23, 2012	8:30-4:30	(28 hrs.)	B	XWWT 606
\$399	MTWR	Feb. 20-23, 2012	8:30-4:30	(28 hrs.)	A	XWWT 605
\$450	MTWR	June 4-7, 2012	8:30-4:30	(28 hrs.)	D	XWWT 608
\$399	MTWR	June 4-7, 2012	8:30-4:30	(28 hrs.)	C	XWWT 607
\$450	MTWR	June 18-21, 2012	8:30-4:30	(28 hrs.)	B	XWWT 606
\$399	MTWR	June 18-21, 2012	8:30-4:30	(28 hrs.)	A	XWWT 605
\$450	MTWR	Oct. 8-11, 2012	8:30-4:30	(28 hrs.)	D	XWWT 608
\$399	MTWR	Oct. 8-11, 2012	8:30-4:30	(28 hrs.)	C	XWWT 607
\$450	MTWR	Oct. 22-25, 2012	8:30-4:30	(28 hrs.)	B	XWWT 606
\$399	MTWR	Oct. 22-25, 2012	8:30-4:30	(28 hrs.)	A	XWWT 605

Physical/Chemical Wastewater Reviews

\$250	TW	Feb. 28-29, 2012	8:30-3:30	(12 hrs.)		XWWT 615
\$250	WR	June 27-28, 2012	8:30-3:30	(12 hrs.)		XWWT 615
\$250	WR	Oct. 17-18, 2012	8:30-3:30	(12 hrs.)		XWWT 615

Physical/Chemical Wastewater Online Courses

Online courses are scheduled monthly; call the SCETC at 803-778-6656 for the next start date.

\$450	D and C Level Short School	(40 hrs.)	XONL 617
\$450	A and B Level Short School	(40 hrs.)	XONL 702

\$250	Review			(12 hrs.)		XONL 615
\$175	6 hr Review for Wastewater Operators			(6 hrs.)		XONL 670

Water Distribution Short Schools

\$375	TWR	Apr. 17-19, 2012	8:30-4:30	(21 hrs.)	D	XWTT 622
\$325	TWR	Apr. 17-19, 2012	8:30-4:30	(21 hrs.)	C	XWTT 623
\$325	TWR	Apr. 24-26, 2012	8:30-4:30	(21 hrs.)	B	XWTT 624
\$325	TWR	Apr. 24-26, 2012	8:30-4:30	(21 hrs.)	A	XWTT 625
\$375	TWR	Aug. 21-23, 2012	8:30-4:30	(21 hrs.)	D	XWTT 622
\$325	TWR	Aug. 21-23, 2012	8:30-4:30	(21 hrs.)	C	XWTT 623
\$325	TWR	Aug. 28-30, 2012	8:30-4:30	(21 hrs.)	B	XWTT 624
\$325	TWR	Aug. 28-30, 2012	8:30-4:30	(21 hrs.)	A	XWTT 625
\$375	TWR	Dec. 11-13, 2012	8:30-4:30	(21 hrs.)	D	XWTT 622
\$325	TWR	Dec. 11-13, 2012	8:30-4:30	(21 hrs.)	C	XWTT 623
\$325	TWR	Dec. 18-20, 2012	8:30-4:30	(21 hrs.)	B	XWTT 624
\$325	TWR	Dec. 18-20, 2012	8:30-4:30	(21 hrs.)	A	XWTT 625

Water Distribution Reviews

\$250	WR	Aug. 15-16, 2012	8:30-3:30	(12 hrs.)		XWTT 626
\$250	WR	Dec. 5-6, 2012	8:30-4:30	(12 hrs.)		XWTT 626

Water Distribution Online Courses

Online courses are scheduled monthly; call the SCETC at 803-778-6656 for the next start date.

\$375	D and C Level Short School			(21 hrs.)		XONL 622
\$375	A and B Level Short School			(21 hrs.)		XONL 609
\$250	Review			(12 hrs.)		XONL 626
\$175	6 hr Review for Water Operators			(6 hrs.)		XONL 669

Water Treatment Short Schools

\$375	MTW	Jan. 9-11, 2012	8:30-4:30	(21 hrs.)	E	XWTT 615
\$450	MTWR	Jan. 9-12, 2012	8:30-4:30	(28 hrs.)	D	XWTT 612
\$399	MTWR	Jan. 9-12, 2012	8:30-4:30	(28 hrs.)	C	XWTT 613
\$375	MTW	May 7-9, 2012	8:30-4:30	(21 hrs.)	E	XWTT 615
\$450	MTWR	May 7-10, 2012	8:30-4:30	(28 hrs.)	D	XWTT 612
\$399	MTWR	May 7-10, 2012	8:30-4:30	(28 hrs.)	C	XWTT 613
\$450	MTWR	May 21-24, 2012	8:30-4:30	(28 hrs.)	B	XWTT 610
\$399	MTWR	May 21-24, 2012	8:30-4:30	(28 hrs.)	A	XWTT 609
\$375	MTW	Sept. 10-12, 2012	8:30-4:30	(21 hrs.)	E	XWTT 615
\$450	MTWR	Sept. 10-13, 2012	8:30-4:30	(28 hrs.)	D	XWTT 612
\$399	MTWR	Sept. 10-13, 2012	8:30-4:30	(28 hrs.)	C	XWTT 613
\$450	MTWR	Sept. 24-27, 2012	8:30-4:30	(28 hrs.)	B	XWTT 610
\$399	MTWR	Sept. 24-27, 2012	8:30-4:30	(28 hrs.)	A	XWTT 609

Water Treatment Reviews

\$250	WR	May 30-31, 2012	8:30-3:30	(12 hrs.)		XWTT 616
\$250	WR	Sept. 19-20, 2012	8:30-3:30	(12 hrs.)		XWTT 616

Water Treatment Online Courses

Online courses are scheduled monthly; call the SCETC at 803-778-6656 for the next start date.

\$450	D and C Level Short School			(40 hrs.)		XONL 612
\$450	A and B Level Short School			(40 hrs.)		XONL 613
\$375	E Level Short School			(21 hrs.)		XONL 611
\$250	Review			(12 hrs.)		XONL 616
\$175	6 hr Review for Water Operators			(6 hrs.)		XONL 669

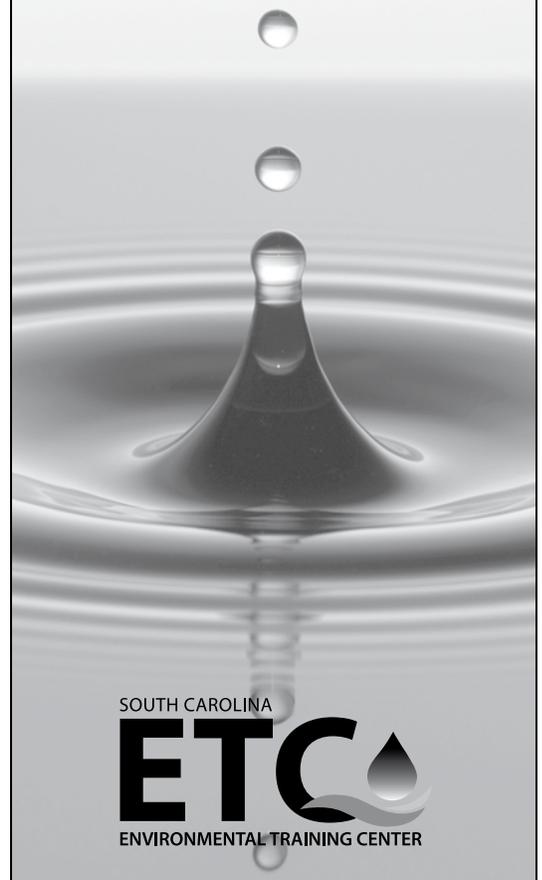
THE SC ENVIRONMENTAL TRAINING CENTER

can customize and deliver training at your organization to meet your needs and schedule.

Save time and money by offering these courses at your facility!

Call 803.778.6656

to discuss on-site training for your operators.



SOUTH CAROLINA
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A Proven Tool for Strengthening Your Workforce



apprenticeship
evolved

A Collaborative Solution

The South Carolina Environmental Certification Board has stated that apprenticeship programs incorporating the ABC's Need-to-Know criteria may be eligible to advance operators to higher levels of licensure more quickly.

The Benefits

The benefits of a customized registered apprenticeship program can be substantial.

- Increased productivity
- Better retention
- Decreased turnover
- Higher morale
- Enhanced employee loyalty
- Increased skill levels

Contact a representative by phone at 803.896.5287
or by email at
apprenticeshipcarolina@sctechsystem.edu



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Water/Wastewater Courses

Chlorine Safety – XHAZ 546

This course offers specialized training in the handling of chlorine cylinders. Students will learn the hazards associated with chlorine and how to find and repair leaks. Students will also gain hands-on experience with the level A & B repair kit. Call the SCETC at 803-778-6656 for the next start date or to schedule this course at your facility.

Pool and Spa Operators Short School: Online – XONL 709

\$150* 10 hrs.

Online courses are scheduled monthly; call the SCETC at 803-778-6656 for the next start date.

This course is for persons responsible for operating or managing swimming pools or spas. Topics include: South Carolina Rules and Regulations, legal requirements, water requirements, water chemistry, filtration and circulation, disinfection techniques, water testing, troubleshooting, problem prevention, and safety. The student will work one-on-one with a personal instructor. *There is an additional \$70 fee for students who would like to purchase the Certified Pool-Spa Operator Handbook from the National Swimming Pool Foundation.

Math for Operators Courses

Most math courses are offered online. See page 4 for additional information.

6-Hour Basic Math for Operators – XMAT 418

\$175	T	Feb. 7, 2012	8:30-3:30	(6 hrs.)
\$175	W	Sept. 5, 2012	8:30-3:30	(6 hrs.)

This introductory math course is beneficial for water and wastewater operators who are preparing for a basic level state certification exam or for operators who desire a refresher course in mathematics. The course involves practicing basic math calculations that apply to treatment facilities.

6-Hour Advanced Math for Operators – XMAT 419

\$175	W	Feb. 8, 2012	8:30-3:30	(6 hrs.)
\$175	R	Sept. 6, 2012	8:30-3:30	(6 hrs.)

This advanced math course is beneficial for water and wastewater operators who are preparing for an advanced level state certification exam or for operators who desire a refresher course in mathematics. The course involves learning advanced math calculations that apply to treatment facilities.

Basic Math for Operators – XMAT 413

\$299	MT	Mar. 26-27, 2012	8:30-3:30	(12 hrs.)
\$299	MT	Oct. 15-16, 2012	8:30-3:30	(12 hrs.)

This introductory math course is beneficial for water and wastewater operators who are preparing for a basic level state certification exam or for operators who desire a refresher course in mathematics. The course involves practicing basic math calculations that apply to treatment facilities. Course topics include addition, subtraction, multiplication, division, fractions, decimal equivalents, conversions, formulas, units of measure, word problems, and calculating dosages.

Advanced Math for Operators – XMAT 415

\$299	WR	May 30-31, 2012	8:30-3:30	(12 hrs.)
\$299	MT	Nov. 19-20, 2012	8:30-3:30	(12 hrs.)

This advanced math course is beneficial for water and wastewater operators who are preparing for an advanced level state certification exam or for operators who desire a refresher course in mathematics. The course involves learning advanced math calculations that apply to treatment facilities. Course topics include a general math review and

problems related to coagulation, chemical feeders, clarification, chlorination, fluoride, filtration, hydraulics, motors, pumps, and flow rates.

Safety Courses

OSHA 10-Hour General Industry Standards for Safety and Health – XHAZ 543

\$250	M	May 14, 2012	8:30-4:30	
	T	May 15, 2012	8:30-11:30	(10 hrs.)
\$250	M	Nov. 12, 2012	8:30-4:30	
	T	Nov. 13, 2012	8:30-11:30	(10 hrs.)

This 10-hour OSHA course covers the role and function of OSHA, and methods of compliance based on the General Industry Standards. Topics include OSHA record keeping requirements, common violations/citations, walking and work surfaces, means of egress and fire protection, lockout/tagout, guarding, HAZCOM, etc. It is recommended this course be taken every three years to receive updated information from OSHA. This course can also be delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

OSHA 30-Hour General Industry Standards for Safety and Health – XHAZ 524

\$550	MTWR	May 14-17, 2012	8:30-5:00	(30 hrs.)
\$550	MTWR	Nov. 12-15, 2012	8:30-5:00	(30 hrs.)

This 30-hour course covers the role and function of OSHA and methods of compliance based on General Industry Standards. Topics include the Occupational Safety and Health Act requirements, record keeping, inspections and citations, hazardous materials, hazard communications, walking and working surfaces, egress and fire protection, machine guarding, electrical lockout/tagout, confined space entry, bloodborne pathogens, PPE selection, industrial monitoring, respirator standards, electrical codes, risk management, noise abatement, toxicology, and industrial hygiene evaluations. It is recommended this course be taken every three years to receive updated information from OSHA. This course can also be delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

8-Hour HAZWOPER Refresher – XHAZ 503

\$199	M	Apr. 23, 2012	8:30-5:30	(8 hrs.)
\$199	M	Oct. 15, 2012	8:30-5:30	(8 hrs.)

This course provides the OSHA mandated 8 hours of annual refresher training required for employees handling hazardous materials or hazardous waste or who may participate in emergency response activities. Topics include: legal overview, properties and identification of hazardous materials, protective equipment, use of instrumentation, and incident planning. This course can also be delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

24-Hour HAZWOPER – XHAZ 502

\$450	MTW	Apr. 23-25, 2012	8:30-5:30	(24 hrs.)
\$450	MTW	Oct. 15-17, 2012	8:30-5:30	(24 hrs.)

This three-day course is designed for employees with containment or clean up responsibilities involving hazardous material spills or emergencies. Topics include: legal overview, properties of hazardous materials, use of respiratory protection and personal protective equipment, spill remediation, and decontamination techniques, and a dress-out field exercise. This course meets the OSHA 29 CFR 1910.120 training requirements. The 24 hour HAZWOPER certification requires an 8 hour annual refresher (XHAZ 503 & XHAZ 551 will meet the requirement). This course can also be delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

40-Hour HAZWOPER – XHAZ 501

\$650	M-F	Apr. 23-27, 2012	8:30-5:30	(40 hrs.)
\$650	M-F	Oct. 15-19, 2012	8:30-5:30	(40 hrs.)

This five-day course is designed for persons who handle hazardous materials and may participate in emergency response activities. The program includes intensive classroom and practical dress-out spill/cleanup exercises. Legal overview of regulations, basic

toxicology, site characterization and analysis, monitoring equipment, spill mitigation, drum over-pack and repair, and full dress field exercises are included. This course meets the OSHA 29 CFR 1910.120 training requirements. The 40 hour HAZWOPER certification requires an 8 hour annual refresher (XHAZ 503 & XHAZ 551 will meet the requirement). This course can also be delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Forklift Operation and Safety Refresher – XHAZ 606

\$150 R Feb. 16, 2012 8:30-12:30 (4 hrs.)
 \$150 T Aug. 14, 2012 8:30-12:30 (4 hrs.)

This course is designed to meet the refresher training required under OSHA regulations 29 CFR 1910.178 for experienced forklift operators. The training course includes classroom instruction, written evaluation and a demonstration of competency by the student on the forklift. Forklift operators are required to take this training every three years for recertification. Forklift wallet cards and certificates are awarded to participants who successfully complete this training. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Forklift Train the Trainer – XHAZ 544

\$299 R Feb. 16, 2012 8:30-5:30 (8 hrs.)
 \$299 T Aug. 14, 2012 8:30-5:30 (8 hrs.)

This class combines the operator class (HAZ 606) with practice in how to train other forklift operators, stressing both hands-on and classroom training. Forklift operator trainers are required to take this training every three years for recertification. Trainees receive a wallet card and certificate with the Forklift Trainer License title. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Forklift Operator Training for Beginners – XHAZ 720

\$450 TW Mar. 13-14, 2012 8:30-5:30 (16 hrs.)
 \$450 MT Sept. 17-18, 2012 8:30-5:30 (16 hrs.)

This course is designed for an individual with no experience in forklift operation. Students will learn to operate a forklift in a safe and professional manner. This program includes classroom instruction, written evaluation, practical training and a demonstration of competency by the student on the forklift. Forklift operators are required to take a refresher training course (XHAZ 606) every three years for recertification. Certificates and wallet cards are awarded to participants who successfully complete this training. Class size is limited to 12 participants. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Confined Space Entry – XHAZ 545

\$175 T Aug. 7, 2012 8:30-3:30 (6 hrs.)

This course is designed to meet the OSHA (29 CFR 1910 146) requirements for training of persons who must enter and work in confined spaces. This course defines a confined space, explains confined space hazards and preparations for entering. This program stresses the importance of safety awareness and hazard evaluation control. Permits will be written and entries will be performed in our confined space simulator. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Confined Space Entry and Rescue – XHAZ 509

\$350 TW Aug. 7-8, 2012 8:30-3:30 (12 hrs.)

This course is designed to meet the OSHA (29 CFR 1910 146) requirement for training of persons who must enter and work in confined spaces. This course defines a confined space, explains confined space hazards, preparations for entering, and procedures for performing rescues from confined spaces. This program stresses the importance of safety awareness and hazard evaluation and control. Permits will be written, and actual entries will be performed at our confined space simulator. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

HAZCOM-RCRA-DOT – XHAZ 551

\$199 T June 26, 2012 8:30-5:30 (8 hrs.)

This course can serve as an annual refresher course for 24 and 40 hour HAZWOPER requirements as listed in 40 CFR 262. It also meets the DOT renewal requirement as listed in 49 CFR 172 (must be renewed every three years) and the annual RCRA renewal requirement. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

NIMS / Incident Command – XHAZ 504

\$199 T July 17, 2012 8:30-5:30 (8 hrs.)

This course meets the training requirements for personnel assuming the responsibility of onsite Incident Commander of emergencies involving hazardous materials pertaining to the National Incident Management System (NIMS). Topics to be covered include: the Incident Command System, local, state and federal emergency response procedures, emergency response plans, risk assessment, decontamination procedures, chemical and physical properties of hazardous materials, hazard assessment, reference materials, spill response plans, and defensive spill response procedures. Twenty-four hours or more of emergency response training at the technician or specialist level is recommended prior to taking this course. This course can also be customized and delivered onsite at your facility. Dates and times can be scheduled at your convenience. Call 803-778-6656 for additional information.

Chlorine Safety – XHAZ 546

This course offers specialized training in the handling of chlorine cylinders. Students will learn the hazards associated with chlorine and how to find and repair leaks. Students will also gain hands-on experience with the level A & B repair kit. Call the SCETC at 803-778-6656 for the next start date or to schedule this course at your facility.

Well Driller Courses

Between July 1, 2011 and June 30, 2013, every South Carolina well driller must obtain twelve (clock hours) continuing education units. The South Carolina Environmental Certification Board accepts continuing education courses that are relevant to well drilling or well construction. Examples of relevant courses include: safety, operation and maintenance of equipment, geology, math, engineering, environmental subjects, first aid and water chlorination.

Well Driller Regulation Review – XWDR 621

\$150 M June 25, 2012 8:30-3:30 (6 hrs.)

This course is intended for well drillers who need 6 hours of continuing education to maintain their well drilling license. The course will cover processes, regulations, safety, and equipment.

Basic Well Drilling Short School – XWDR 627

\$250 MT Apr. 2-3, 2012 8:30-3:30 (12 hrs.)
 \$250 MT Oct. 1-2, 2012 8:30-3:30 (12 hrs.)

This 2-day course will cover basic knowledge of well construction standards, regulations, and general drilling terminology. It is designed for persons desiring to achieve a lower level (D or C) well driller license in the state of South Carolina.

Advanced Well Drilling Short School – XWDR 628

\$250 WR May 23-24, 2012 8:30-3:30 (12 hrs.)
 \$250 MT Nov. 19-20, 2012 8:30-3:30 (12 hrs.)

This 2-day course covers advanced knowledge of well drilling practices and construction standards, including classification and regulation of wells, establishing standards for location, construction, materials, reporting, operation, maintenance, and abandonment. It is designed for persons desiring to achieve an advanced level (B or A) well driller license in the state of South Carolina.

THE PROBLEM

A raindrop leaves a cloud at 9:00 AM and is traveling at 30 feet per second towards a receiving water body. Determine the quality and quantity of the droplet after considering the following challenges:

withdrawal, discharge, drought, power generation, nature, recreation, agriculture, politics, special interests, economic development, downstream needs...

THE SOLUTION

$$\sum_{z=1988}^{\infty} (\text{SCAWWA} + \text{WEASC}) > \text{Challenges}_{\text{Water}}$$

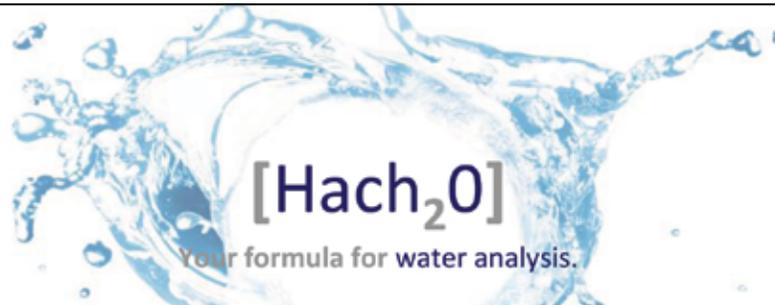
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