Electrical Training Programs for Utility & Maintenance Personnel

Instrumentation for Water, Wastewater & Utility Operations
January 8, 2015

Basic Electrical Print Reading
February 3, 2015

Ladder Logic
February 26 & 27, 2015

O & M of Pumps
March 11 - 13, 2015

Motor Controls Circuits
May 6 - 8, 2015

Fundamentals of Generators and Transformers
May 21 & 22, 2015

Office of Continuing Professional Education

Instrumentation for Water, Wastewater & Utility Operations
January 8, 2015
Course code: EO0701CA15
Instructor: Sheldon Kay
Registration fee: $290
Multi person fee: $250
NJ licensed water operators: $145 (T, W or VSWS only)
6 TCHs for NJ water and wastewater license holders
Approval #01-010103-30

Instrumentation - from flow meters to pressure gauges and everything in between - plays an integral role in many work places. Do you know the why's and how's behind the equipment? If not, this course may be for you! It will present an introduction to the fundamentals of instrumentation, including vocabulary and nomenclature. Specific topics include: basic formulae, conversion, and calculations, pressure and velocity, measuring and transmitting devices, proper equipment usage and safety.

A great introduction or refresher!

Remember: the TCH deadline is September 30, 2015.
Don’t be caught short!

COURSE STATUS INFORMATION FOR ALL REGISTRANTS
In case of inclement weather or other events (such as power failures) that may result in a course being delayed or cancelled, you may check the status of a course after 6:00am on the morning of the event by calling us or visiting our website and clicking the Adverse Weather Advisory “Course Status Page” link.

Visit: www.cpe.rutgers.edu
Call: (848) 932-9271 and select option 4 from the menu

If course is cancelled, we will contact you during normal business hours about rescheduling or receiving credit towards another program.

Note: OCPE’s short course cancellations will not be announced on the radio. Please check with us via phone or the web to make sure you have the most up-to-date and accurate information on the status of your course!

Please use good judgment before traveling. Safety should be your top priority in deciding whether to attend class.
Basic Electrical Print Reading  
**February 3, 2015**  
**Course Code:** EO0708CA15  
**Instructor:** Sheldon Kay  
**Registration fee:** $290  
**Multi person fee:** $250  
**NJ licensed water operators:** $145 (T, W or VSWS only)  
6 TCHs for NJ water and wastewater license holders  
Approval #01-010110-30

This course presents the basic skills required for reading and interpreting electrical prints and diagrams. A great introduction or refresher! Topics include: schematics, diagram logic, types and uses of diagrams/schematics, symbols and markings, wiring diagrams, scales and conversions.

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**Ladder Logic**  
**February 26 & 27, 2015**  
**Course Code:** EO711CB15  
**Instructor:** Terry Tomsky  
**Registration fee:** $380  
**Multi person fee:** $350  
**NJ licensed water operators:** $190 (T, W or VSWS only)  
12 TCHs for NJ water and wastewater license holders  
Approval #01-090005-30

One of our popular hands-on courses taught by one of our most popular instructors.

The course will show you how line diagrams provide fast and easily understood pictures of control circuit operations. Topics include: ladder diagrams, circuit design, voltage back feeds and control circuit basics.

**PLEASE BRING A VOLT/OHM METER TO CLASS!!**

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O & M of Pumps  
**March 11-13, 2015**  
**Course Code:** EO0710CB15  
**Instructors:** Terry Tomsky & Sean Irwin  
**Registration fee:** $495  
**Multi person fee:** $450  
**NJ licensed water operators:** $247.50 (T, W or VSWS only)  
18 TCHs for NJ water and wastewater license holders  
Approval #01-090010-30

This is, without a doubt, our most popular hands-on course! You will learn and practice accepted procedures for both daily and long term maintenance of pumps and related equipment. Proactive maintenance and a thorough understanding of the inner workings of a pump can save time and increase the efficiency of your operation. Topics will include: types and uses of pumps, terms and classifications, mechanical seals, pump head calculations and performance curves.

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Fundamentals of Generators and Transformers  
**May 21 & 22, 2015**  
**Course Code:** EO0703CA15  
**Instructor:** Michael Madden  
**Registration fee:** $380  
**Multi person fee:** $350  
**NJ licensed water operators:** $190 (T, W or VSWS only)  
12 TCHs for NJ water and wastewater license holders  
Approval #01-010109-30

This course provides an introduction to the theory and operation of these important pieces of electrical equipment. If your facility uses them for emergency backup power or as a source of supplemental power, this course will teach you the basic information you need to operate and maintain them safely and effectively. Topics include: basic operation of generators and transformers, uses and limitations of the equipment, troubleshooting problems and maintenance issues, other types of emergency power supplies.

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Motor Control Circuits: Wiring to Troubleshooting  
**May 6 - 8, 2015**  
**Course Code:** EO0709CB15  
**Instructor:** Terry Tomsky  
**Registration fee:** $495  
**Multi person fee:** $450  
**NJ licensed water operators:** $247.50 (T, W or VSWS only)  
18 TCHs for NJ water and wastewater license holders  
Approval #01-090006-30

This course will present the theory of control operation and the proper techniques for diagramming control circuits. Once you are familiar with the basic circuit, you will be shown how to apply the same theories to more complex systems to quickly troubleshoot and repair equipment. Topics will include: basic control circuit and holding circuit wiring, permissive circuits and light indication wiring, time interface circuits, electrical interlock interfacing circuits and timers.

**PLEASE BRING YOUR VOLT/OHM METER!!**