

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## ANNOUNCES

# BASIC CHEMISTRY for WATER and WASTEWATER PERSONNEL

*Winter 2010*

Presented By:



Authority: Act 399, P.A. 1976

## Other Michigan Section, AWWA and DEQ training planned in 2010:

Joint Expo/Operators Day (Lansing)	February 2 - 3
Cross Connections-Basic (Lansing)	February 23
Basic Math & Hydraulics (Gull Lake)	Mar 2 - 4
Water Treatment I (Gull Lake)	Mar 2 - 4
MSU Water Chemistry (Michigan State University)	March 9-11
Water Treatment II (Higgins Lake)	March 29 - 31
Limited Treatment (Higgins Lake)	March 29 - 31
MSU Water Bacteriology (Michigan State University)	May 11-13
Basic Electricity (Gull Lake)	May 25 - 27

For further information, contact:

Paul Brun Del Re  
Operator Training & Certification Unit  
(OTCU)  
Michigan Department of Environmental  
Quality  
P.O. Box 30273  
Lansing, MI 48909-7773  
Phone: (517) 241-8914  
Fax: 517-241-0325  
E-mail: [brundelrep@michigan.gov](mailto:brundelrep@michigan.gov)

***All applicants will be notified as to the exact time, place and other course details by their instructor. Applicant names will be given to instructors in mid-December.***

<http://www.mi-water.org> for complete brochures

*This brochure was printed at no cost to the State of Michigan.*

BASIC CHEMISTRY FOR WATER AND WASTEWATER PERSONNEL 2010

**A Course For**--Water and wastewater personnel and others interested in refreshing their knowledge of basic chemistry as it relates to employment.

**Course Content**--Course includes: Atoms and elements, chemical bonding and compounds, solutions, acids and bases, chlorination, alkalinity, coagulation and flocculation, water softening and more.

**Length of Course**--The course of study will begin in January, 2010 and run for twelve weeks, meeting once a week for 2 1/2 hours each evening.

**Cost**--The cost for the course is expected to be \$170-\$190 depending on the location and number of participants. This fee includes all tuition and a course textbook.

**Staff**--Where possible, the teaching staff will be people with experience in water and wastewater treatment and/or engineering.

**Credit**--Individuals in the drinking water field may be awarded 3.0 CEC's for successfully completing the course. Individuals in the wastewater field may be awarded 3.0 CEC's in the technical category and 3.0 semester hour equivalents toward Class A or B certification. Upon completion, the student will receive a course certificate.

**NOTE:** A good knowledge of basic mathematics is recommended for students desiring to take this course.

**Locations**--We will attempt to offer the course in the following cities:

- |            |           |
|------------|-----------|
| Detroit    | Kalamazoo |
| Lansing    | Ann Arbor |
| Port Huron | Muskegon  |

**NOTE** -- Arrangements for this course can be made at other locations provided there would be an adequate number of students to participate.

**Applications**--It is requested that managers and superintendents who receive this announcement discuss the course with all who might be interested, including those in public works departments and water and wastewater plants.

Please FAX or return the attached application as soon as possible, but preferably no later than **December 11, 2009.** Completion of the application indicates your intent to participate.

**FAX (517) 241-0325**

**Do not send money with this application.**

**APPLICATION  
BASIC CHEMISTRY  
\*\*\*Please Print\*\*\***

Name \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Employer \_\_\_\_\_

Mailing Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone (    ) \_\_\_\_\_

**Check Location Desired** (check only one)

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Detroit    | <input type="checkbox"/> Kalamazoo |
| <input type="checkbox"/> Lansing    | <input type="checkbox"/> Ann Arbor |
| <input type="checkbox"/> Port Huron | <input type="checkbox"/> Muskegon  |

**Do not send money with this application.**

**\* Please return by December 11, 2009. \***