New Courses

Course Name	Course Description	Continuing Education Units (CEUs)
Energy Management in Drinking Water Systems	This course is designed to provide participants with the understanding and importance of Energy Management Planning and Energy Audits and provide practical approaches for reducing energy usage and costs while mitigating impacts of climate change. **Key areas of study:** Challenges in managing systems, barriers to energy management, strategy, risk identification, steps for planning and reducing energy costs' alternative treatment strategies, water conservation programs, energy audits, impact of climate change on water utilities **Target audience:** municipal utility staff involved in energy management planning, water treatment plant operators, plant designers and managers, plant inspectors and compliance officers, academics, research groups	0.7
Drinking Water Treatment and Troubleshooting Techniques	This course is specifically geared to discussion of operational issues concerning a wide range of conventional and advanced drinking water treatment technologies typically found in municipal drinking water treatment facilities. An emphasis is placed on recognition of warning signs and troubleshooting of the various processes. Dealing with disinfection by-products, emerging contaminants and waterborne disease outbreaks are covered in the curriculum. **Key areas of study:** identifying and understanding the basic operational concepts of common drinking water treatment equipment, formation and treatment of disinfection by-products, occurrence and treatment of emerging contaminants, prevention of waterborne disease outbreaks **Target audience:** advanced drinking water treatment operators (Class II through IV), but would benefit all water treatment professionals, engineers and inspectors; *not recommended for personnel exclusively using groundwater*	0.7
Safe Drinking Water: Lessons from Outbreaks	This course provides water professionals with a comprehensive review of several waterborne disease outbreaks that have occurred in Canada and the United States. The focus is on what we have learned from these disasters and how to avoid making the same mistakes in the future. Training material is drawn from a book coauthored by Dr. Steve Hrudey and Elizabeth Hrudey entitled "Safe Drinking Water – Lessons from Recent Outbreaks in Affluent Nations". **Key areas of study:** multiple barrier approach, key water quality concepts, characteristics of pathogenic organisms, preventing disease outbreaks **Target audience:** drinking water professionals, managers, consultants, regulatory personnel, engineers, operators and municipal officials	0.7
Iron and Manganese Control Strategies	This course is designed to teach operators various types of iron and manganese removal/control strategies for drinking water. Participants will learn iron and manganese removal technologies and their limitations. The course will specifically focus on iron and manganese sequestration and their advantages and disadvantages. The course will also include a video presentation on some of the iron and manganese removal/control strategies currently in use in some of the water treatment facilities in Ontario. Participants will also get a "hands-on" experience analyzing iron and manganese. **Key areas of study:** occurrence, aesthetic implications, chemistry, impact on water quality, microbial activity, removal technologies **Target audience:** water treatment operators, water distribution operators, supervisors	0.7

For more detailed descriptions of these and other courses, please visit http://www.wcwc.ca/en/training/coursecatalogue.asp

To view our currently scheduled course offerings, please visit http://www.wcwc.ca/en/event_list.aspx?groupid=310&_mid_=1171

To inquire about bringing a course to your location, please contact the Centre at 1-866-515-0550.