# About the WORKSHOPS

The Workforce Development and Community Services Division of Southern State Community College is sponsoring two workshops to allow water and wastewater operators to **gain up to (12) Contact hours in just two days**. Choose one or both, according to what your schedule allows.

#### **PLEASE NOTE!**

The Ohio EPA now requires all attendees to have their **Core Person ID Number with them to sign in on the day of attendance.** Certification of attendance to the Ohio EPA cannot be sent without this number.

Workshop hours each day are **8:30 a.m.- 4:00 p.m.**, with a continental breakfast, lunch, and break refreshments provided - all included with the cost of the workshop. Registration begins at 8 a.m. Classes are subject to change due to unforeseen COVID-19 restrictions.

There are **three ways to register** for the workshops; by the **online form**, by **phone**, or by **email**. Details are provided inside this brochure.

We hope you can take advantage of these **unique training opportunities**, and look forward to seeing you in class!

COMMUNITY COLLEGE 100 Hobart Drive, Hillsboro, OH 45133

# License Renewal WORKSHOPS

for Water & Wastewater Operators

Tuesday, **Sept. 27, 2022** Wednesday, **Sept. 28, 2022** 

at the **North Canton Dogwood Shelter** 241 7th Street NE North Canton, OH 44720



# 21st Century Membrane Technology in the **Water/Wastewater Process**

Tuesday, Sept. 27, 2022 8:30am – 4:00pm

(6) Contact Hours OEPA Approval – OEPA-B552580-OM (Both DW & WW) **Instructor:** Mike Harrington, C.E.T.

**Description:** This program looks at the application and use of membrane technology to address the ever tighter regulatory requirements in both water and wastewaters. Through easy to understand graphics, terrific verbal presentation, and timely demonstrations, attendees will learn what common filtration methods look like today. Then we will define the various membranes in use today and see how technology is being applied in a variety of applications by removing bacteria, protozoa's, viruses, dissolved minerals, toxic elements, etc. Next we visit the various types of membranes used and see how membrane pore size and pressure requirements are inverse of each other. Next we will see how membrane technology today is helping wastewater treatment plants meet enhanced nutrient removal requirements. We will also learn what wastewater operational modifications are needed to include membranes. Finally, we will study case history users of membrane technology and see how it is applied.



Define various membranes and learn how technology is applied in a variety of applications

See how membrane technology is helping wastewater treatment plants meet the enhanced nutrient removal requirements

Learn how membrane pore size and pressure requirements are inverse of each other

# Advanced Disinfection Technologies in the Water/Wastewater Process

Wednesday, Sept. 28, 2022 8:30am – 4:00pm

(6) Contact Hours OEPA Approval – OEPA-B88151727-OM (Both DW & WW) **Instructor:** Mike Harrington, C.E.T.

**Description:** This program starts by exploring a quick comparison of the three common chlorine types: Gas, Hypochlorite, and HTH (solid form of chlorine). We will look at alternative forms of disinfection/oxidation by using twocomponent chemical and non-chemical systems. We will learn what happens when Chlorine is added to Ammonia (Chloramines), or Sodium Chlorite (Chlorine Dioxide) and how different both of these alternatives perform disinfection and byproduct issues. Next we look at the role Hydrogen Peroxide plays when combined with Acetic Acid (Peracetic Acid) and Ultraviolet (Advanced Oxidation Processes) as well as simple dissolved Iron. We introduce the role of Hydroxyl ions (OH~) in destroying pathogens, reducing and oxidizing troublesome by-products and toxics like arsenic and cyanide in our waters and wastewaters.

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Review alternative forms of disinfection/oxidation by using two-component chemical and non-chemical systems



Learn how different alternative chemicals perform as well as create disinfection and byproduct issues.



**Please note:** MASKS are not required, but may be worn if preferred.

Please remember the importance of handwashing and sanitizing. If you are feeling ill, please do not attend the workshop. Contact Amanda Lewis at **800.628.7722 x3520** for a refund.

# REGISTRATION

Earn (6) Contact hours for each workshop! Cost of each workshop is \$125 per person,

which includes a light breakfast, lunch, and snacks each day (depending on any unforeseen COVID-19 restrictions). There are three ways to register for these workshops:

**ONLINE** – complete the online form at

### www.sscc.edu/specialized/ workshops-registration.shtml

No later than **September 16**. For online registrations, an email confirmation will be sent once successfully enrolled.

#### BY PHONE - call 800.628.7722 x3520

(Amanda Lewis) Monday through Thursday, 7:30am – 5:30pm , and provide your credit card number or purchase order number and billing address.

**BY EMAIL** - send an email containing your registration information to Amanda Lewis at **alewis@sscc.edu**.

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*Cancellations must be received seven days prior to workshop date.* For more information, please contact Amanda Lewis at alewis@sscc.edu or by calling 800.628.7722 x 3520.

