

WEAU Annual Conference 2024

Pre-Conference

Using Your Microscope to Enhance Your Understanding of Biological Nutrient Removal

taught by Colleen McGrath

This course will review the basics of using a microscope and the common microorganisms found in wastewater. It will emphasize how to use your microscope and knowledge of microorganisms to understand what is happening in your BNR reactors.

Agenda

8:00 – 9:00	Basic Wastewater Microbiology: The real movers & shakers at a wastewater treatment plant
9:00 – 9:30	Microscope 101: Tips for how to use a microscope and how to make a good slide
9:30 – 10:30	Higher Life Forms: What they can tell you about your BNR reactors
10:30 – 11:30	Filaments/Stains: Identifying key BNR organisms
11:30 – Noon	Viewing plant samples*

* If you are able to do so, bring a relatively fresh mixed liquor sample from your plant to view under the microscope

Instructor Biography:

Colleen McGrath has a Bachelor's degree in Chemistry from Illinois State University. She has 8+ years experience working in the wastewater industry as a lab analyst, operator, and process specialist. She is a Class A certified wastewater and water operator in the state of Colorado. She is an expert in microorganism identification, especially as it relates to BNR, and is a member of the Microbiology group that teaches classes at WEFTEC.

