



Water Chemistry Webinar Description

Water chemistry drives every treatment process, yet it is often presented in ways that feel overly theoretical and disconnected from day-to-day operations. This course bridges that gap by translating fundamental chemical principles into practical tools operators and engineers can use to improve treatment performance, control costs, and maintain compliance.

Participants will gain a working understanding of key chemical concepts including solubility, precipitation, pH, alkalinity, and oxidation-reduction reactions, and how these factors interact within real treatment systems. Special emphasis is placed on how changes in one parameter—such as pH or alkalinity—can directly impact coagulation, disinfection efficiency, corrosion potential, and overall system stability.

The course also explores colloidal chemistry and the mechanisms behind coagulation and flocculation, as well as corrosion chemistry and the use of inhibitors and indices such as the Langelier Saturation Index to evaluate water stability.

In addition to theory, participants will learn how to make informed, cost-effective chemical decisions. This includes understanding true chemical cost versus unit price, evaluating chemical performance, and optimizing dosing strategies based on system conditions.

Through real-world examples and practical calculations, this course equips attendees with the knowledge to interpret lab data, anticipate chemical interactions, and troubleshoot treatment challenges with greater confidence. The result is a stronger ability to manage water chemistry proactively rather than reactively.